



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 40: September 27, 2020 – October 3, 2020

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza-like activity in Missouri is Sporadic².
- During Week 40, a total of 14 laboratory-positive³ influenza cases (7 influenza A and 7 influenza B) were reported. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 40. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) remained low during Week 40 (Figure 5)
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI through ESSENCE was 1.43% (Figure 6).⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- No influenza-associated deaths have been reported in Missouri as of Week 40.⁵
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 40.
- National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020- 2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending September 25, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 40
- Reported Week-specific Rate per 100,000 Population, CDC Week 40
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Week 40 (September 27, 2020 - October 3, 2020)^{*}

Influenza Type	Week 40	2020-21* Season-to-Date
Influenza A	7	7
Influenza B	7	7
Influenza Unknown Or Untyped	0	0
Total	14	14

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*} Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 40 (September 27, 2020 - October 3, 2020)^{}**

Age Group	Week 40 Cases	Week 40 Rate [‡]	2020-21* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	1	0.27	1	0.27
05-24	4	0.25	4	0.25
25-49	5	0.26	5	0.26
50-64	2	0.16	2	0.16
65+	2	0.21	2	0.21
Total	14	0.23	14	0.23

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*} Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 40 (September 27, 2020 - October 3, 2020)^{}**

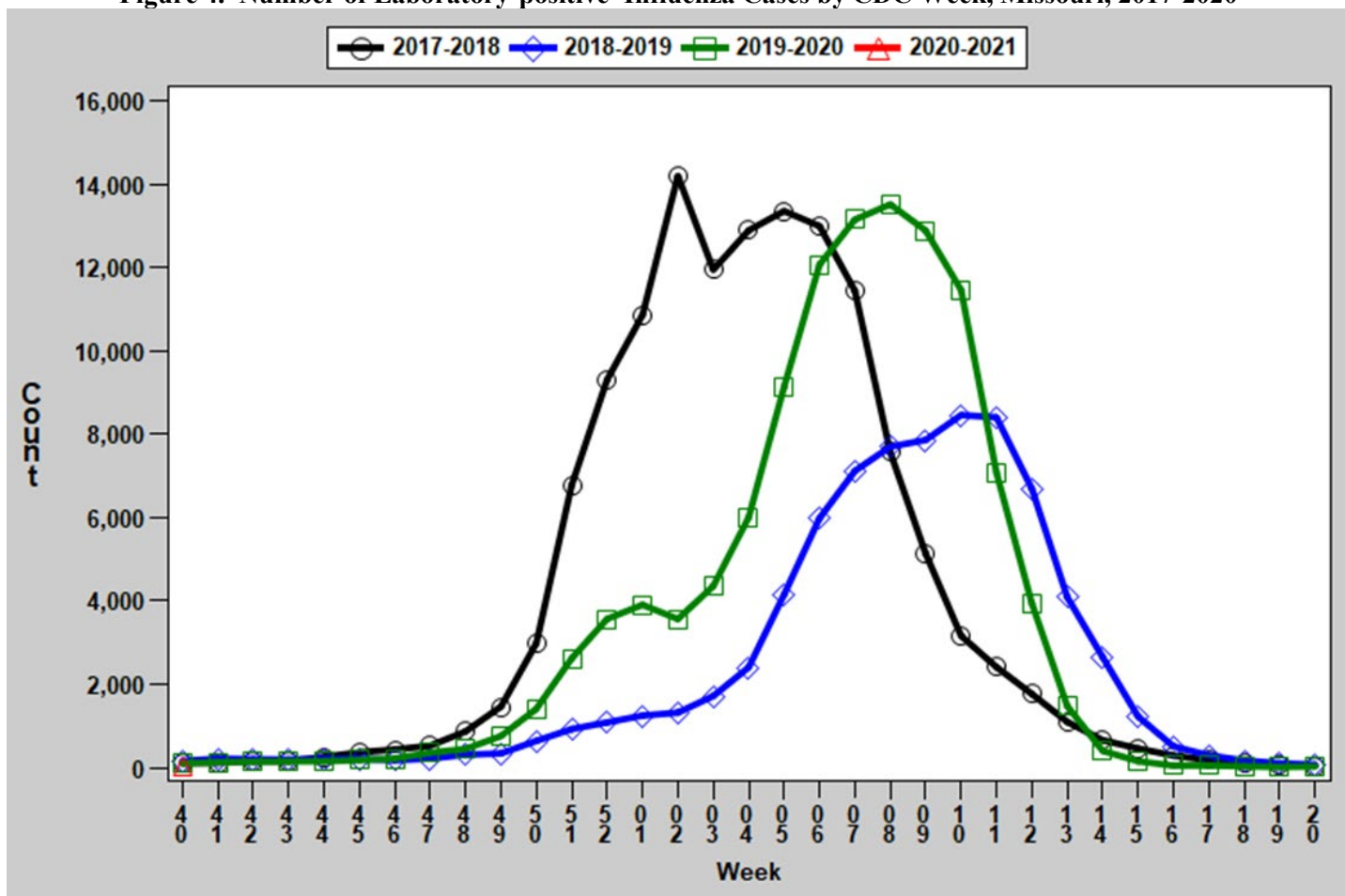
Region	Week 40 Cases	Week 40 Rate [‡]	2020-21* Season-to-Date	2020-21* Season-to-Date Rate [‡]
Central	1	0.15	1	0.15
Eastern	12	0.53	12	0.53
Northwest	0	0.00	0	0.00
Southeast	0	0.00	0	0.00
Southwest	1	0.09	1	0.09
Total	14	0.23	14	0.23

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{**} Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

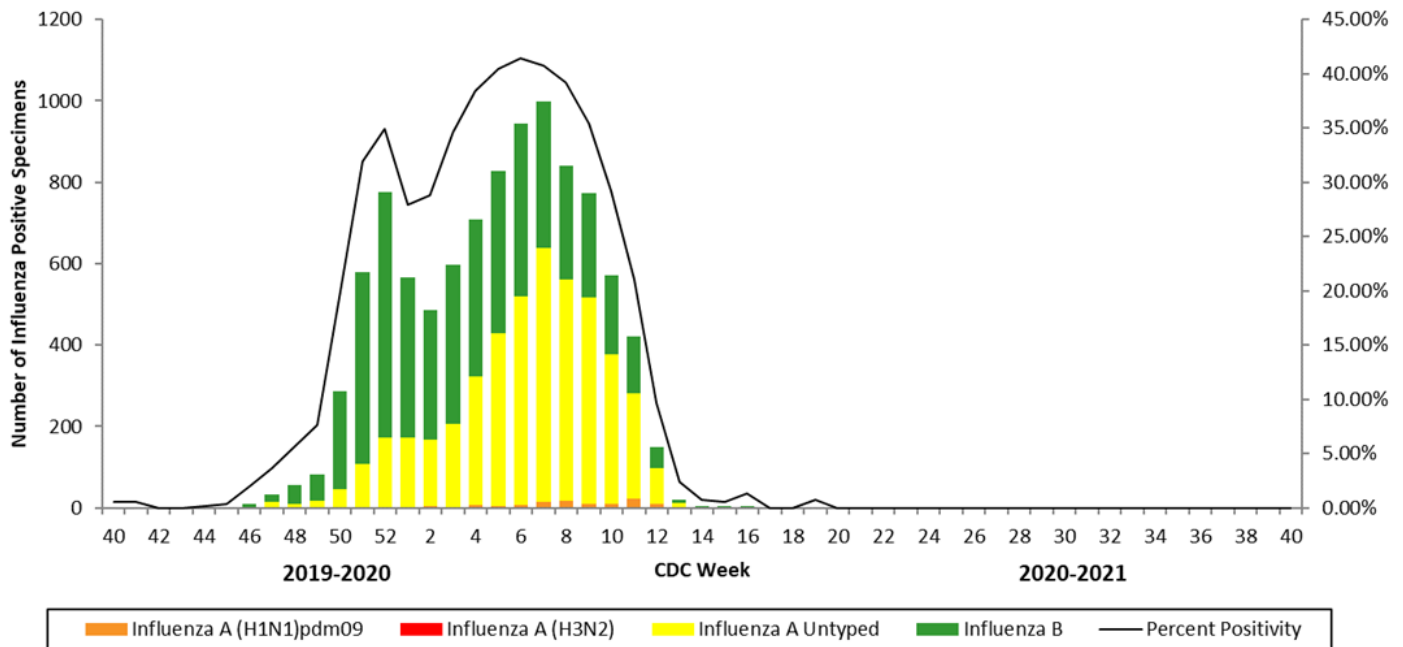
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2020*



[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

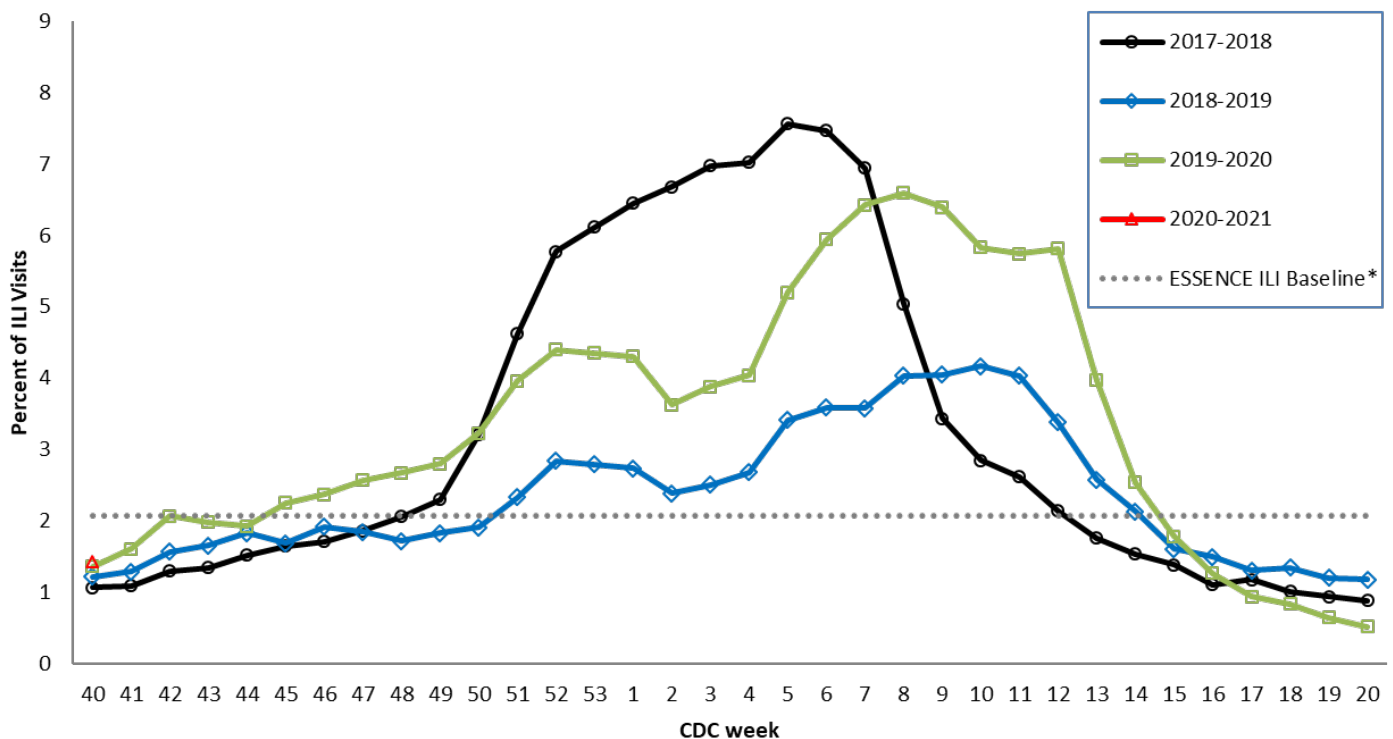
*2020-2021 season-to-date through the week ending May 14, 2021 (Week 20). Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2019-2020 season-to-date through the week ending May 14, 2021 (Week 20).

Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2020 Influenza Seasons**

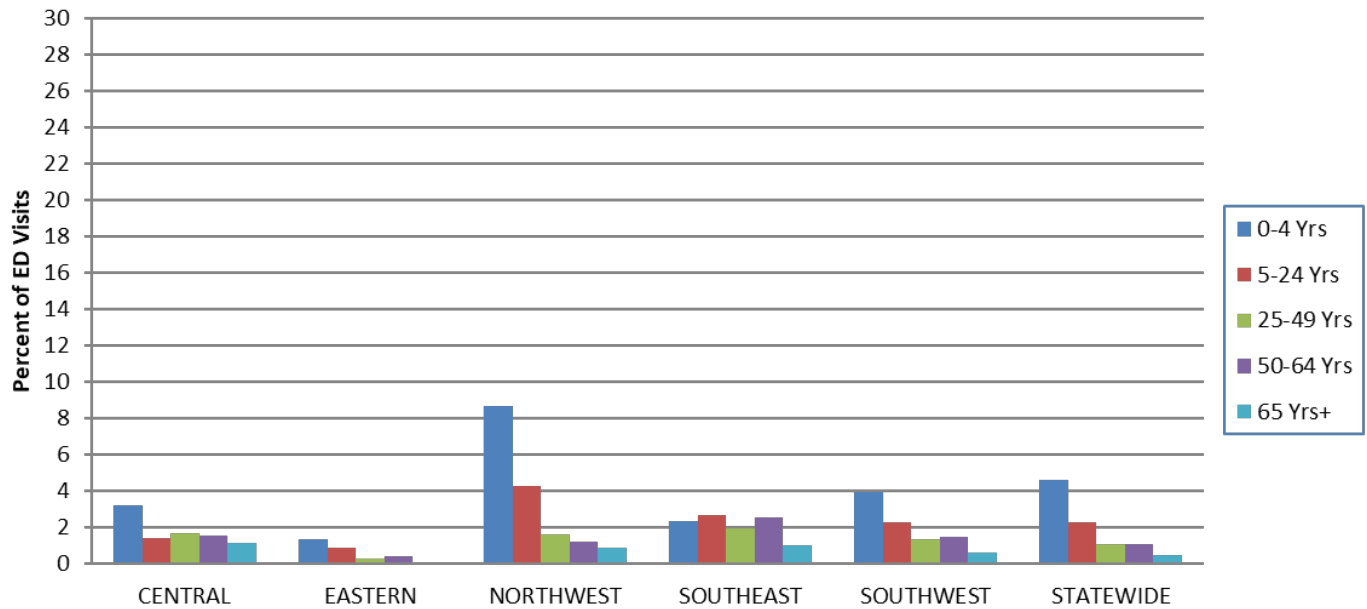


*The ESSENCE ILI Baseline is the mean percent of ILI visits for each week during the previous three years (2017-19) when percentage of ILI visits were less than 2% of total visits, plus two standard deviations. Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

**The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

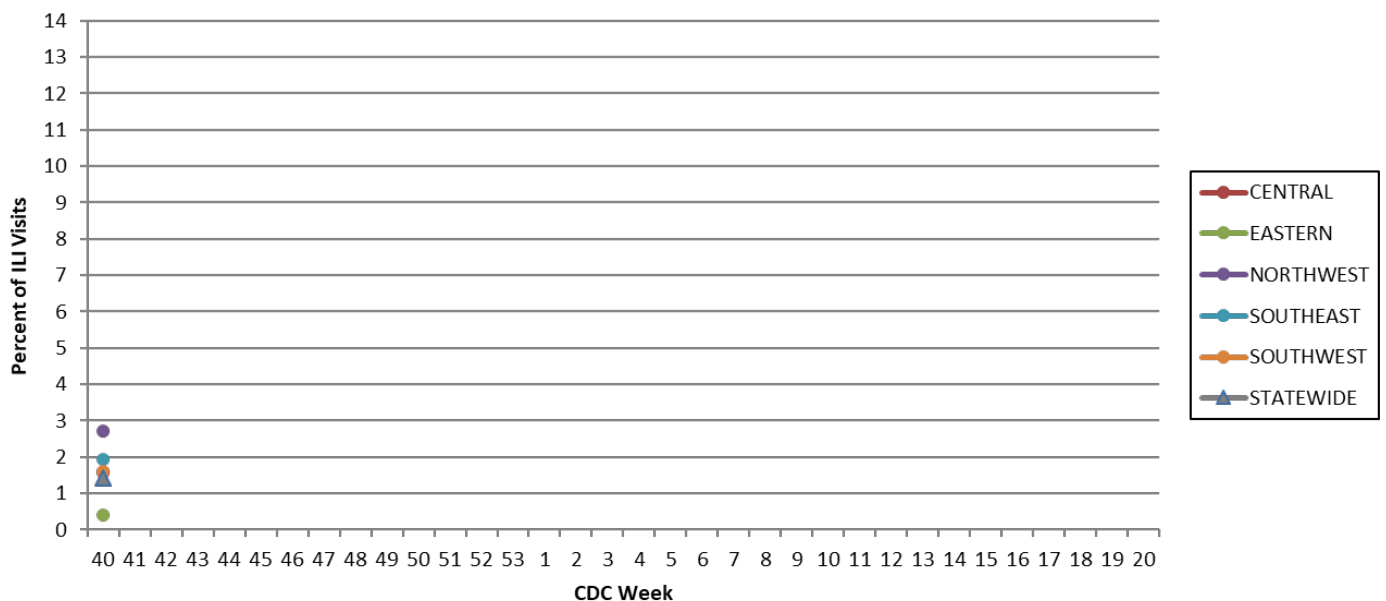
Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 40, 2021*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

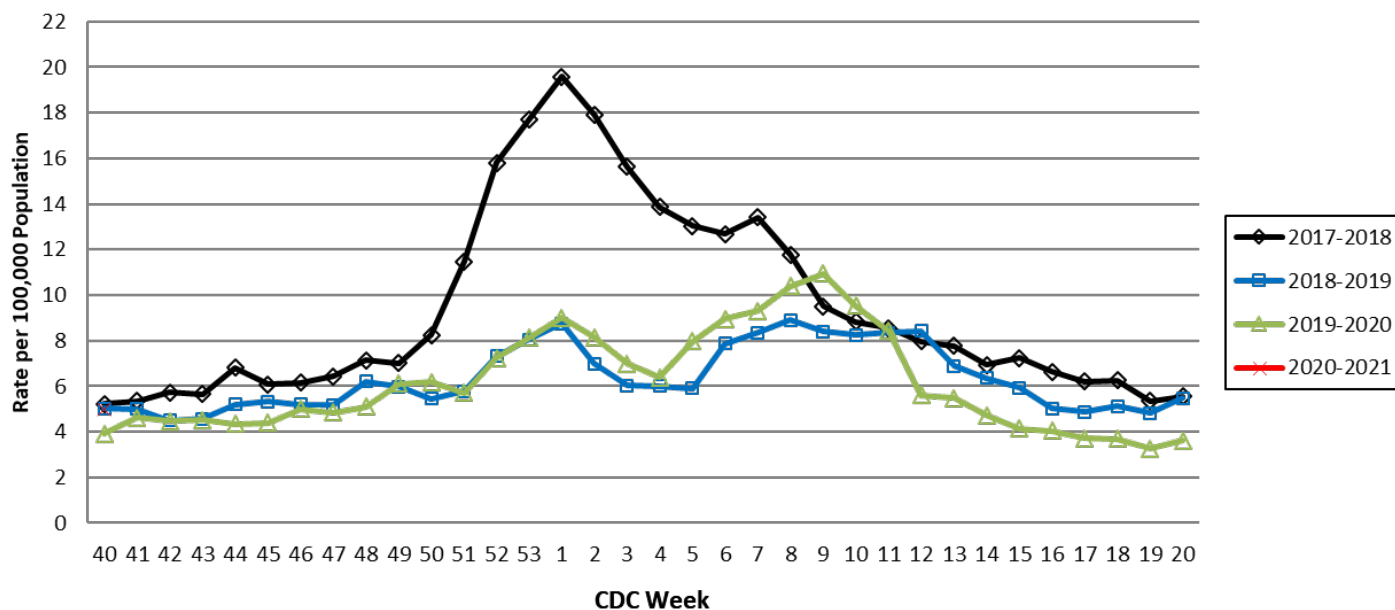
Figure 9. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

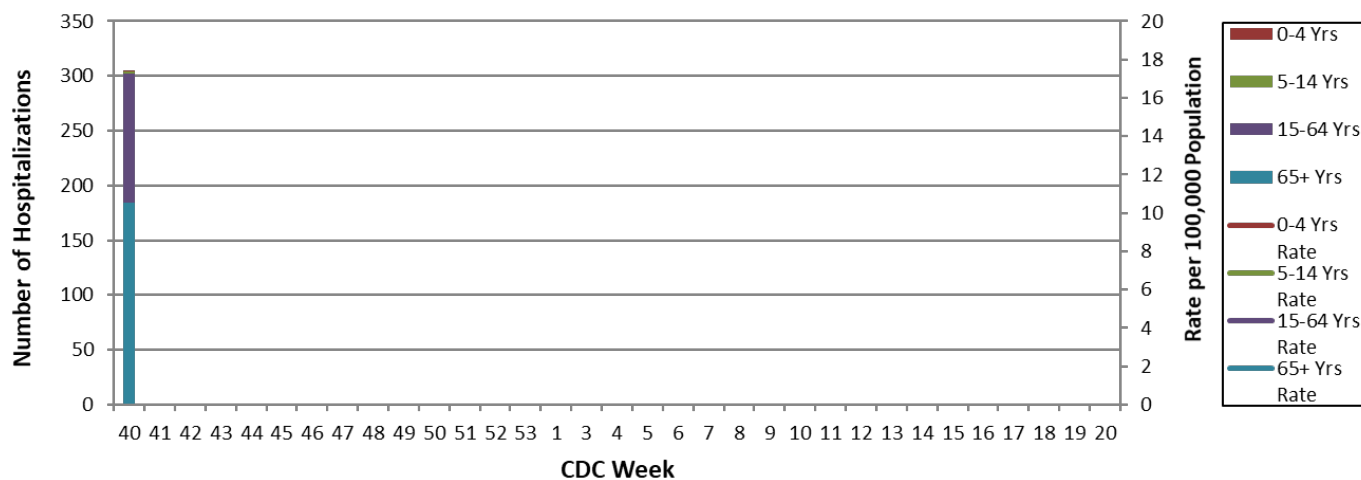
*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 10. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2020 Influenza Seasons



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

Figure 11. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 40, 2020-2021 Influenza Season



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):

<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):

<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:

http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 41: October 4, 2020 – October 10, 2020

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 41, a total of 20 laboratory-positive³ influenza cases (8 influenza A, 12 influenza B) were reported. A season-to-date total of 35 laboratory-positive influenza cases (15 influenza A, 20 influenza B) have been reported in Missouri. The influenza type for reported season-to-date cases includes 42.9% influenza A, 57.1% influenza B. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 41. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) remained low during Week 41 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI was 1.44% (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- No influenza-associated deaths have been reported in Missouri as of Week 41.⁵
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 41.
- Seasonal influenza activity remains low overall across the United States. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending September 25, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0> Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 41
- Reported Week-specific Rate per 100,000 Population, CDC Week 41
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Week 41 (October 4, 2020 - October 10, 2020)*

Influenza Type	Week 40	Week 41	2019-2020* Season-to-Date
Influenza A	7	8	15
Influenza B	8	12	20
Influenza Unknown Or Un-typed	0	0	0
Total	15	20	35

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 41 (October 4, 2020 - October 10, 2020)*[‡]

Age Group	Week 41 Cases	Week 41 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	2	0.53	3	0.80
05-24	4	0.25	8	0.50
25-49	5	0.26	11	0.57
50-64	1	0.08	3	0.24
65+	8	0.84	10	1.05
Total	20	0.33	35	0.58

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 41 (October 4, 2020 - October 10, 2020)^{}**

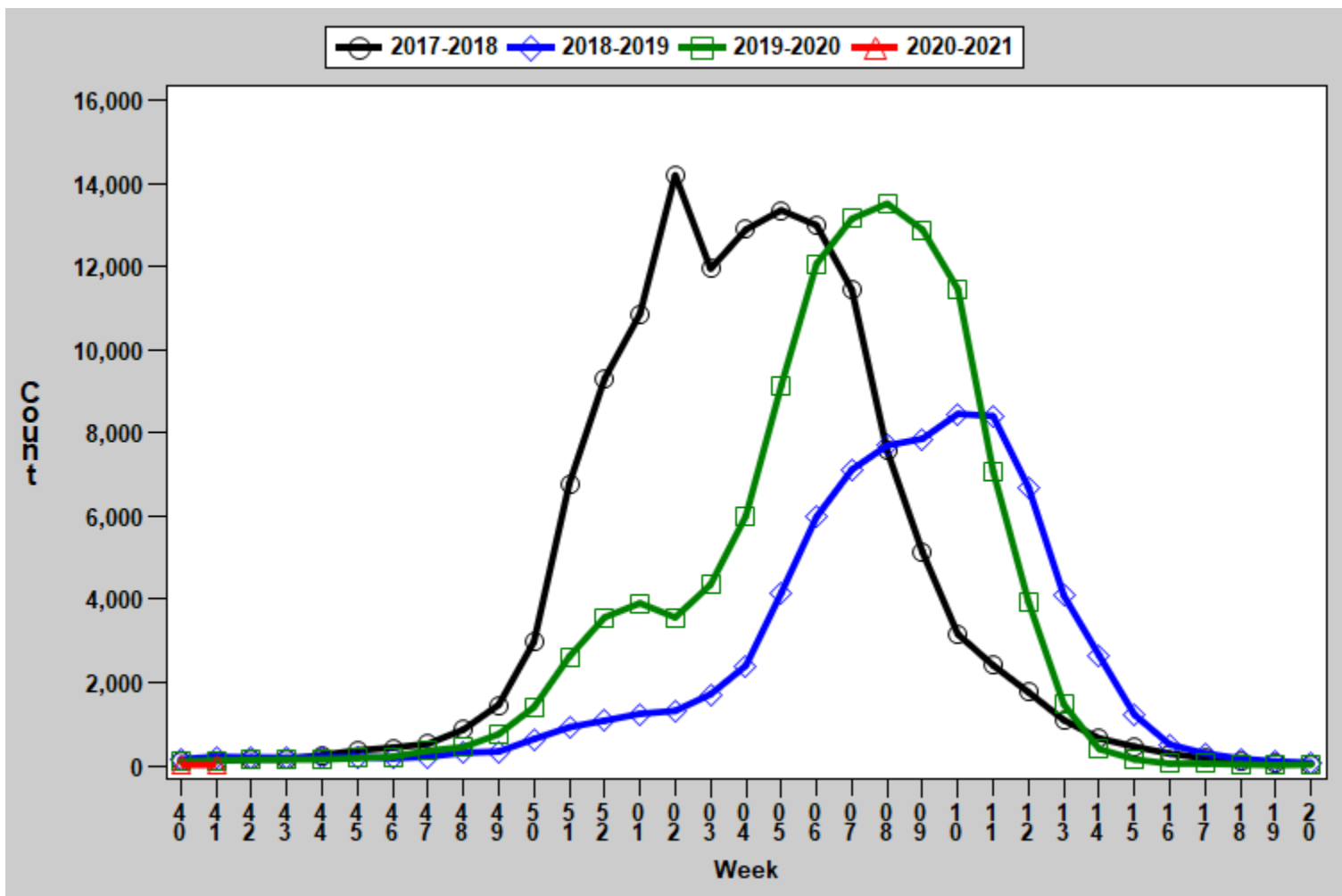
Region	Week 41 Cases	Week 41 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	1	0.15	2	0.30
Eastern	9	0.40	22	0.97
Northwest	2	0.13	2	0.13
Southeast	3	0.64	3	0.64
Southwest	5	0.47	6	0.56
Total	20	0.33	35	0.58

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

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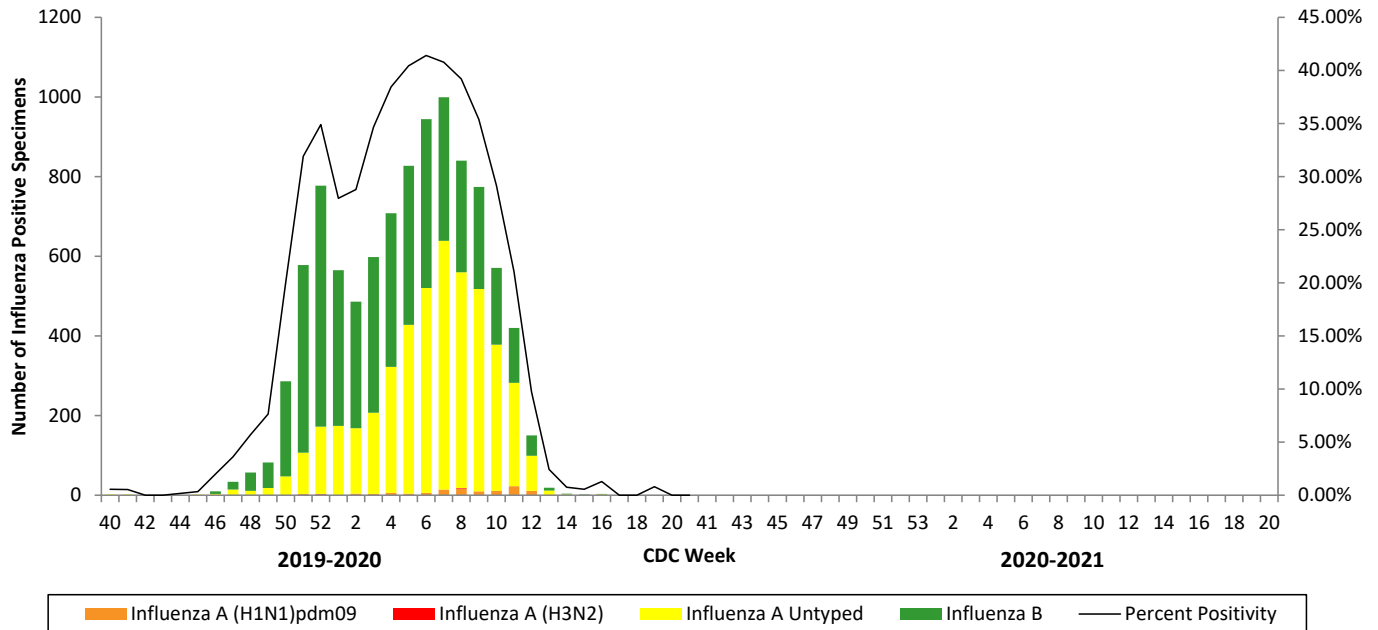
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[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

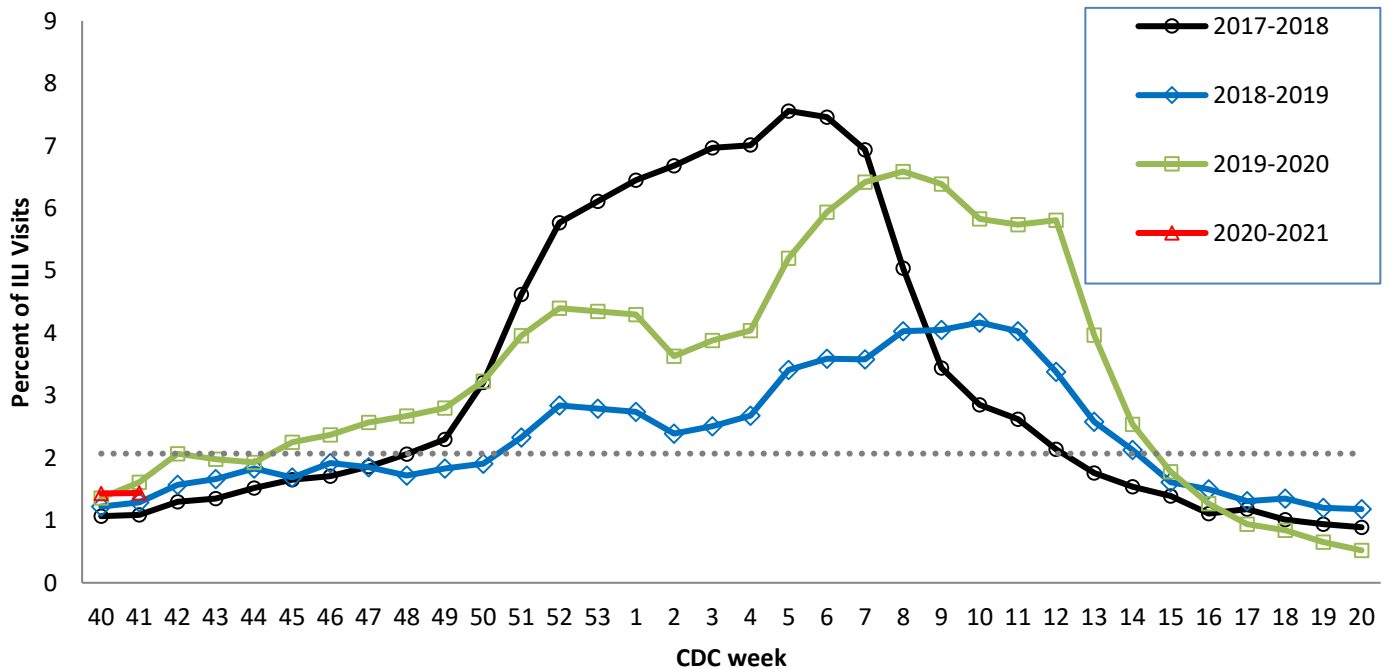
*2020-2021 season-to-date through the week ending May 15, 2021 (Week 20).Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 15, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Flu Seasons



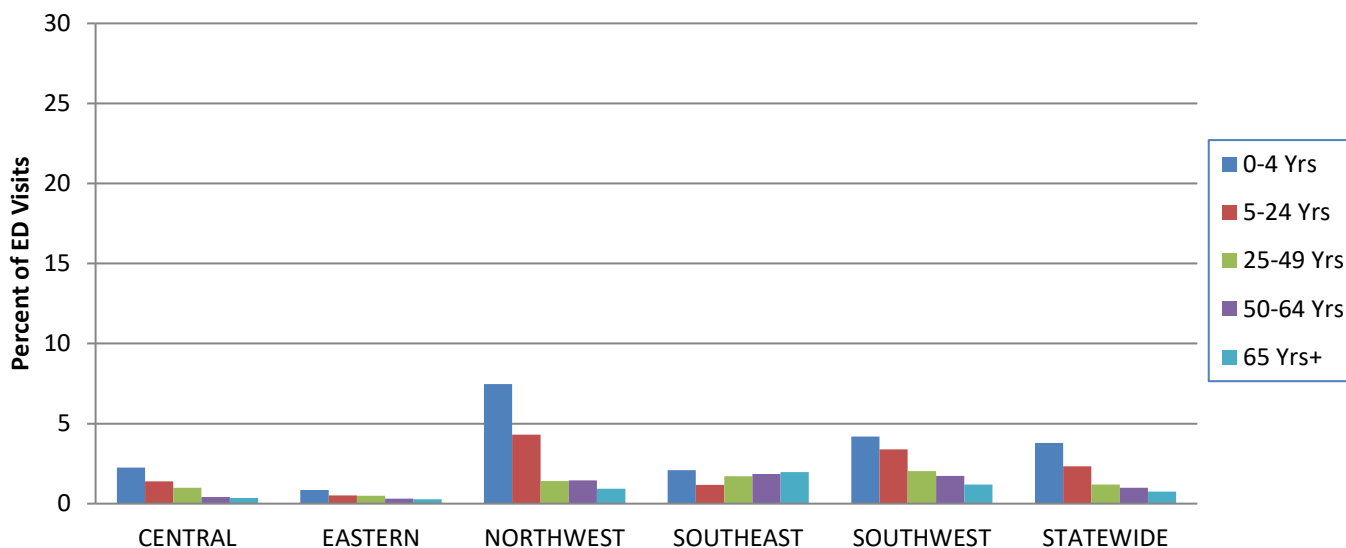
*Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits, plus two standard deviations.

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

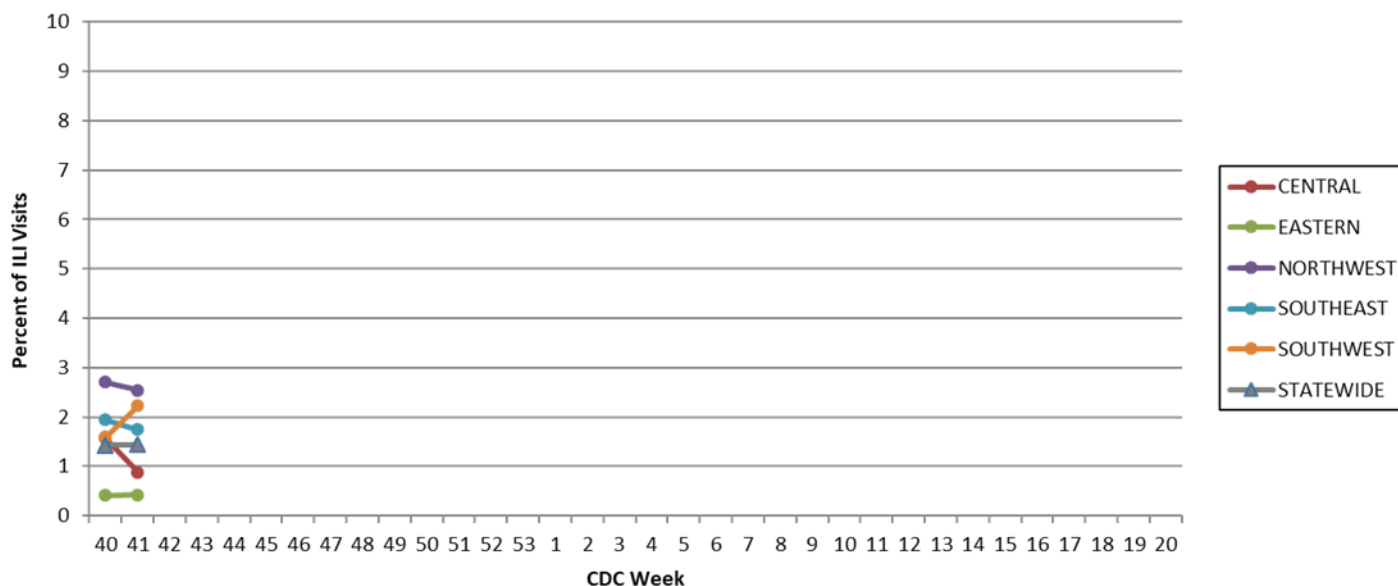
Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 41, 2020*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

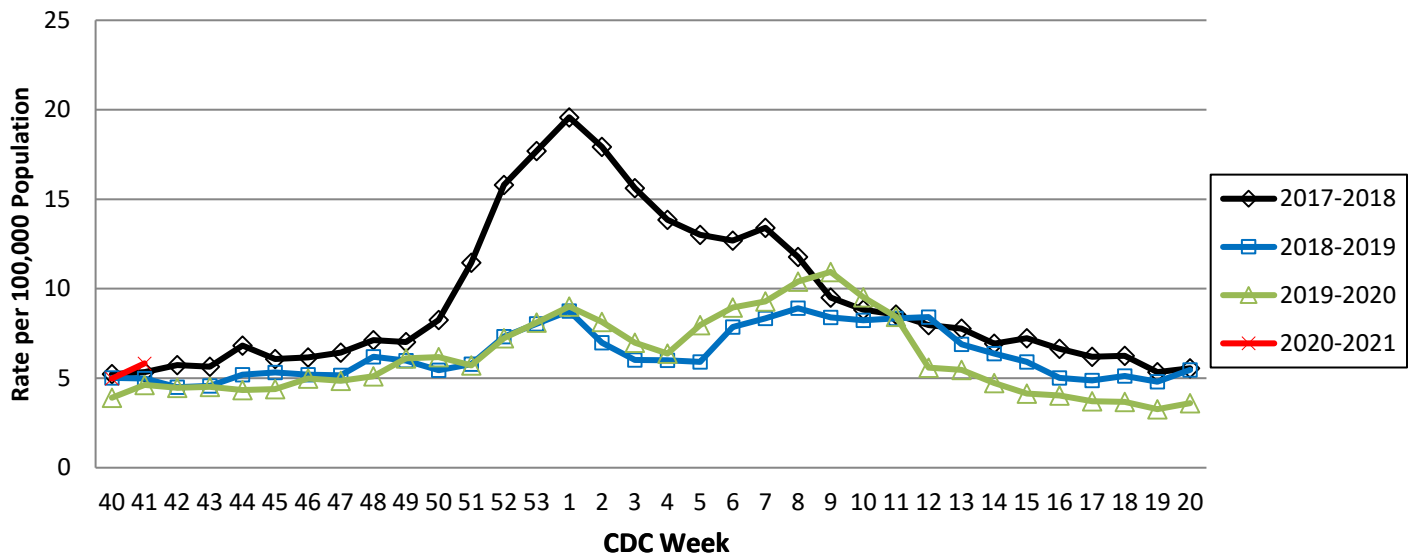
Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

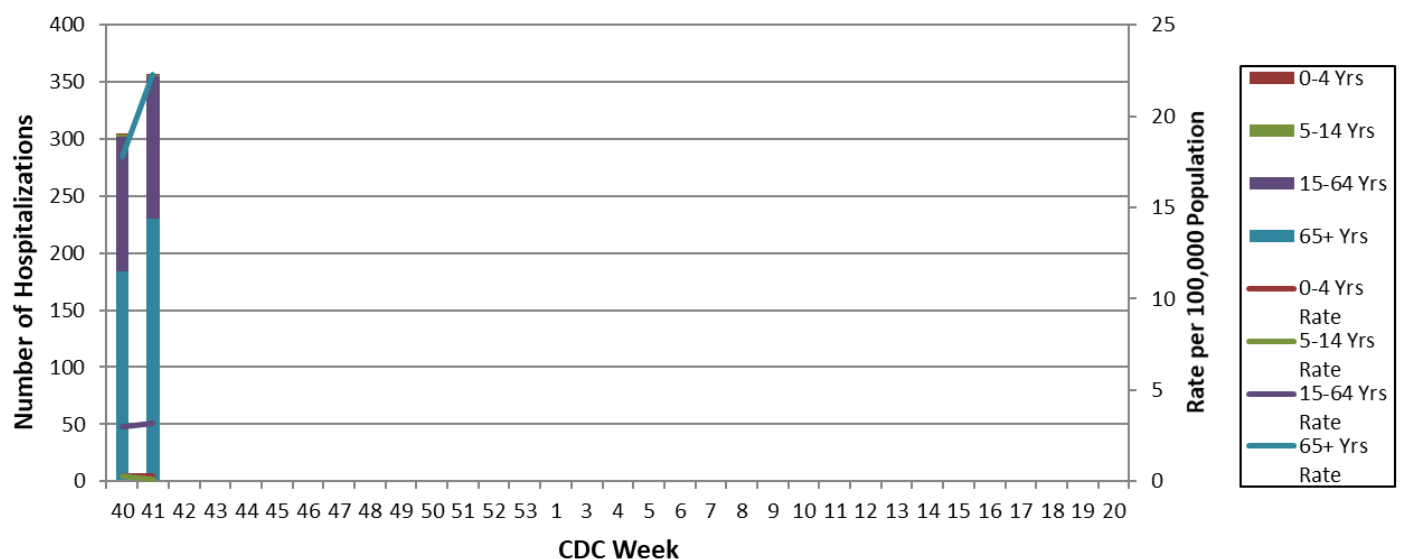
*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 41, 2020-2021 Influenza Season



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease informatics, HL& Messaging Portal.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):
<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):
<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 42: October 11, 2020 – October 17, 2020

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 42, a total of 23 laboratory-positive³ influenza cases (12 influenza A and 11 influenza B) were reported. A season-to-date total of 74 laboratory-positive influenza cases (49% influenza A and 51% influenza B) have been reported in Missouri as of Week 42. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 42. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) remained low during Week 42 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI was 1.19% (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- No influenza-associated deaths have been reported in Missouri as of Week 42.⁵
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 42.
- Seasonal influenza activity remains low in the United States. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending September 25, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 42
- Reported Week-specific Rate per 100,000 Population, CDC Week 42
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Week 42 (October 11, 2020 - October 17, 2020)*

Influenza Type	Week 40	Week 41	Week 42	2019-2020* Season-to-Date
Influenza A	8	16	12	36
Influenza B	9	18	11	38
Influenza Unknown Or Untyped	0	0	0	0
Total	17	34	23	74

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 42 (October 11, 2020 - October 17, 2020)*[‡]

Age Group	Week 42 Cases	Week 42 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	4	1.07	10	2.67
05-24	5	0.31	13	0.81
25-49	6	0.31	21	1.10
50-64	2	0.16	12	0.97
65+	6	0.63	18	1.88
Total	23	0.38	74	1.22

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 42 (October 11, 2020 - October 17, 2020)^{*‡}

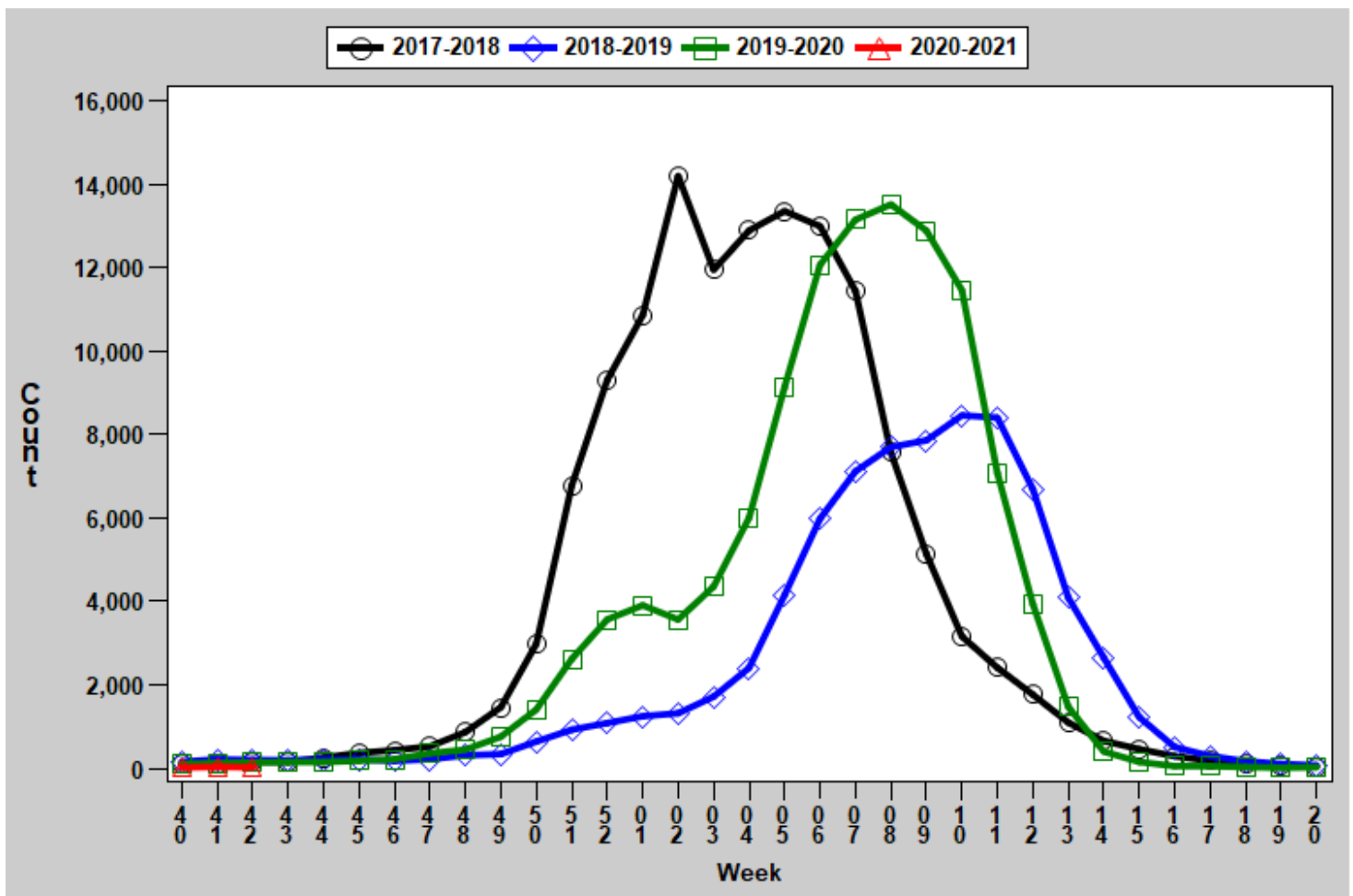
Region	Week 42 Cases	Week 42 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	1	0.15	3	0.44
Eastern	17	0.75	46	2.03
Northwest	0	0.00	6	0.38
Southeast	1	0.21	9	1.91
Southwest	4	0.37	10	0.93
Total	23	0.38	74	1.22

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*} Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

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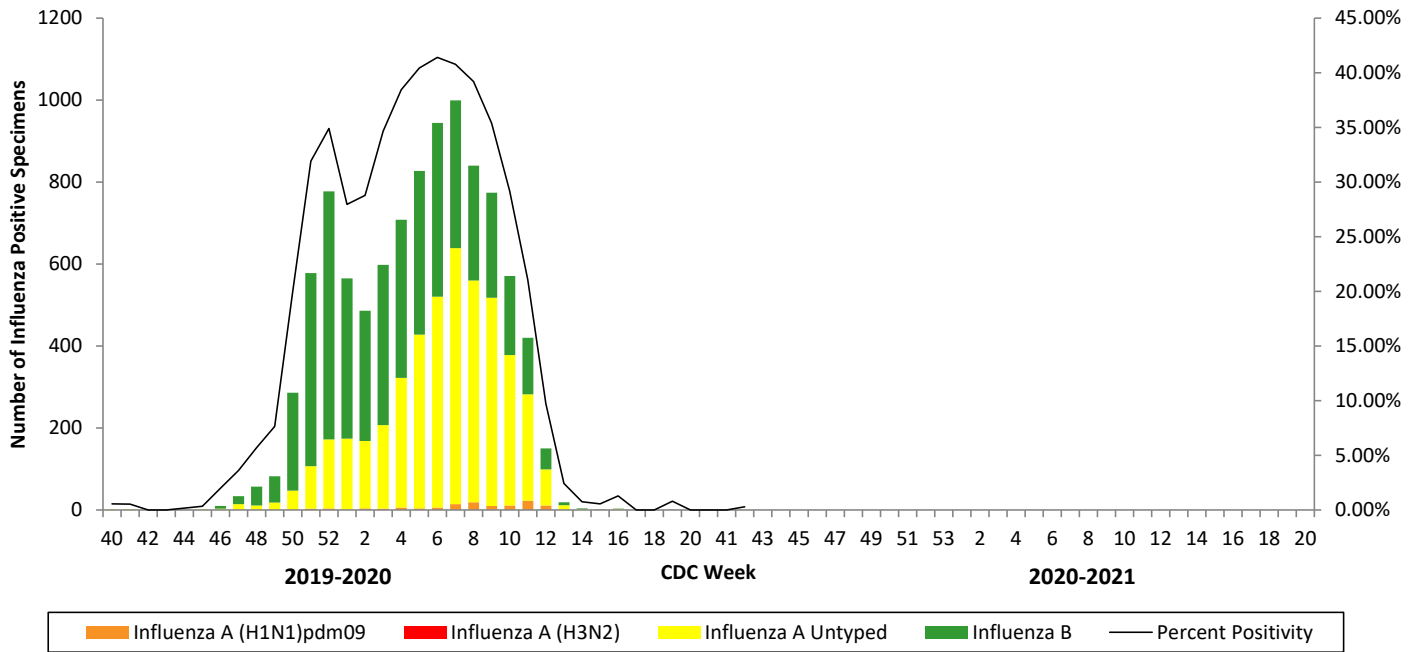
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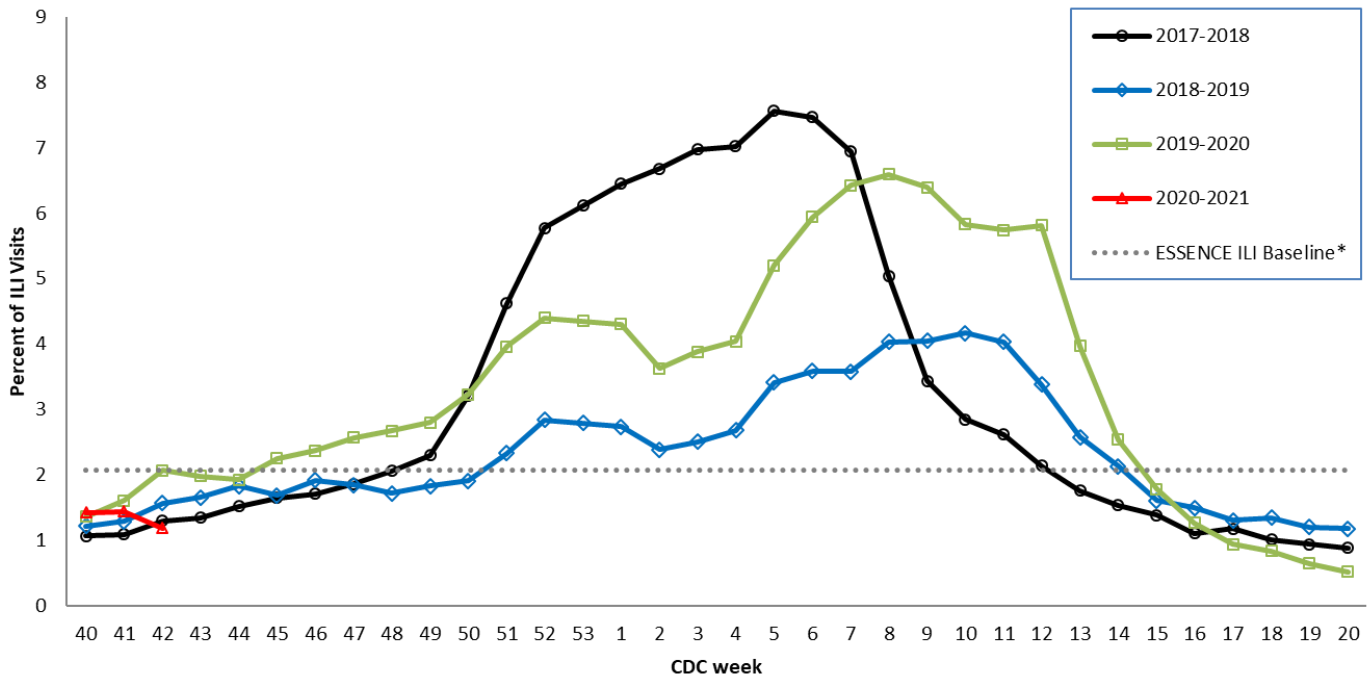
^{*} 2020-2021 season-to-date through the week ending May 15, 2021 (Week 20). Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC). 2020-2021 season-to-date through the week ending May 15, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

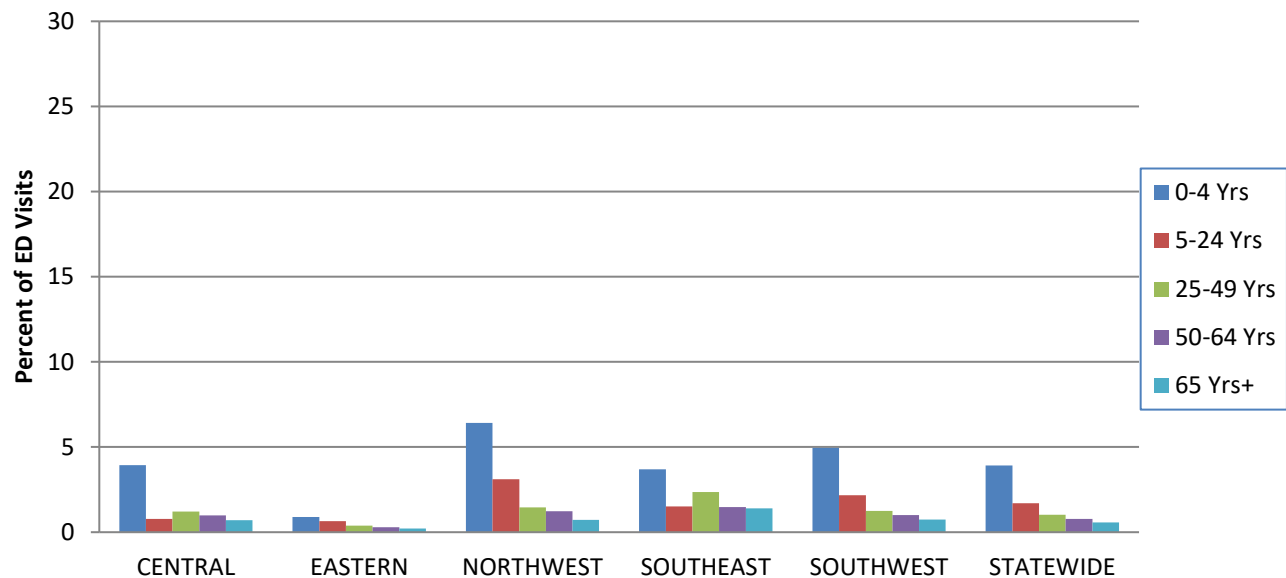


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCE ILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

**There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

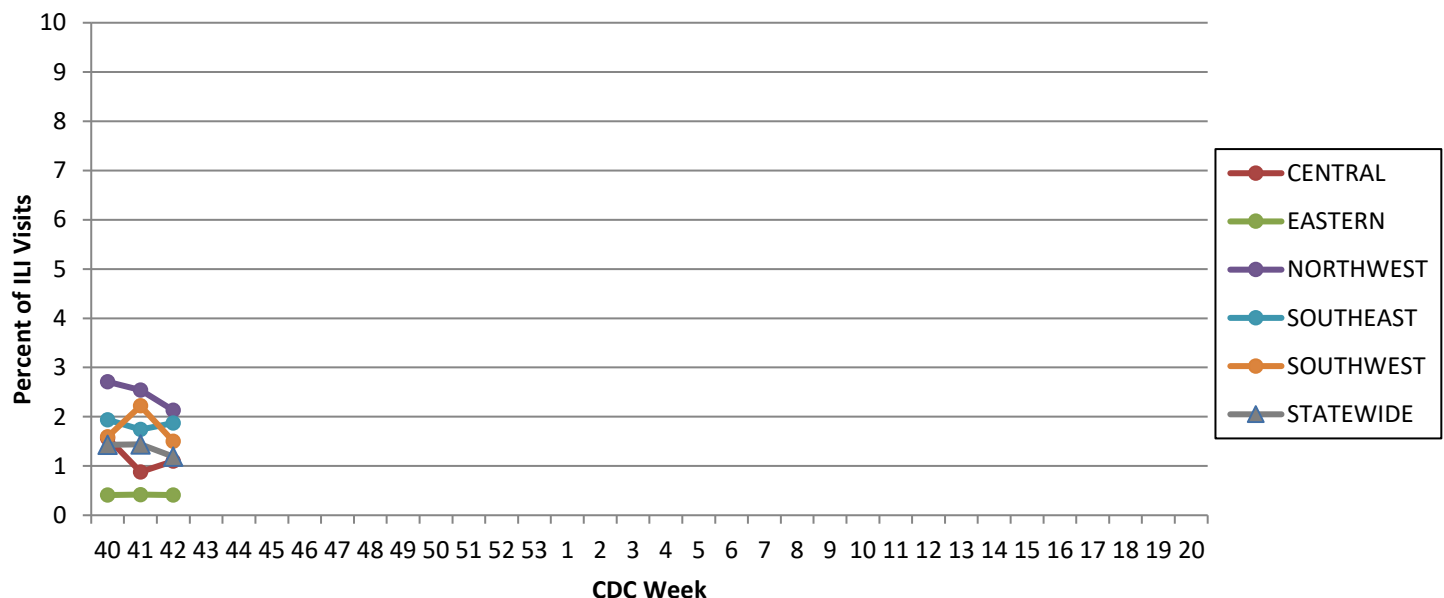
Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 42, 2020*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

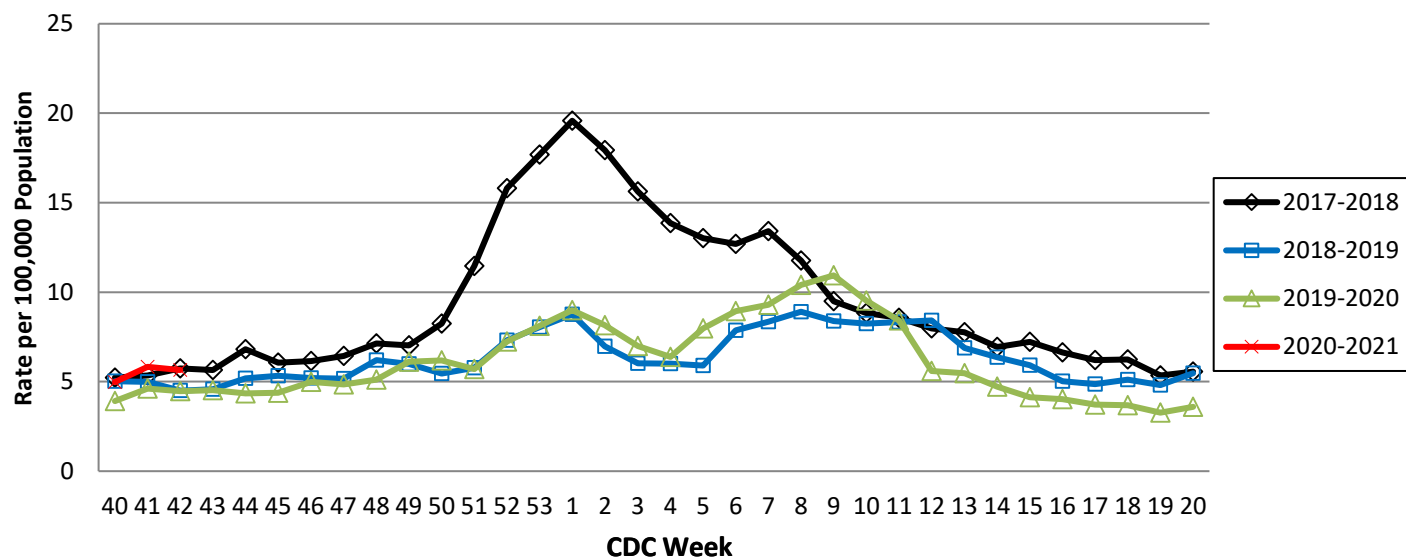
Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

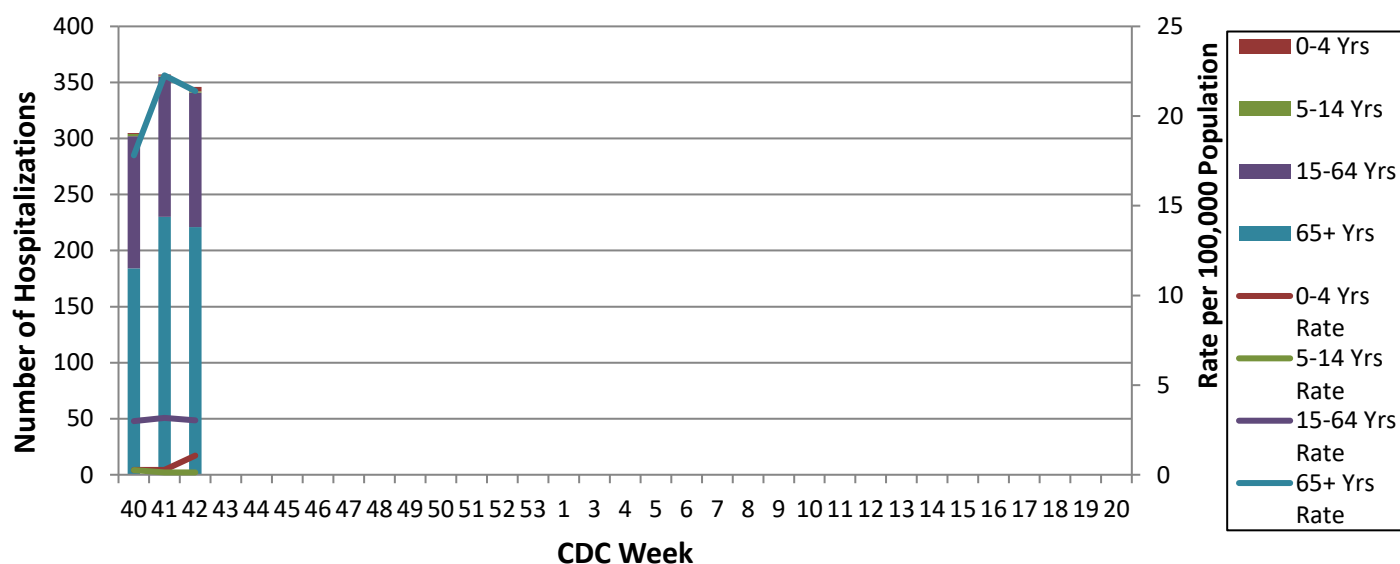
*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 42, 2020-2021 Influenza Season



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):
<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):
<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 43: October 18, 2020 – October 24, 2020

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 43, a total of 40 laboratory-positive³ influenza cases (22 influenza A, 16 influenza B and 2 untyped) were reported. A season-to-date total of 169 laboratory-positive influenza cases (80 influenza A, 87 influenza B, and 2 untyped) have been reported in Missouri as of Week 43. The influenza type for reported season-to-date cases includes 47.3% influenza A, 51.5% influenza B, and 1.2% untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 43. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) remained low during Week 43 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI was 1.21% (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- One influenza-associated death has been reported in Missouri as of Week 43.
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 43.
- Seasonal influenza activity remains low in the United States. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending September 25, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 43
- Reported Week-specific Rate per 100,000 Population, CDC Week 43
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Week 43 (October 18, 2020 - October 24, 2020)^{*}

Influenza Type	Week 41	Week 42	Week 43	2020-2021* Season-to-Date
Influenza A	23	19	22	80
Influenza B	34	19	16	87
Influenza Unknown Or Untyped	0	0	2	2
Total	57	38	40	169

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*} Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 43 (October 18, 2020 - October 24, 2020)^{*}

Age Group	Week 43 Cases	Week 43 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	5	1.34	16	4.27
05-24	7	0.44	37	2.31
25-49	13	0.68	49	2.56
50-64	6	0.49	35	2.83
65+	9	0.94	32	3.35
Total	40	0.66	169	2.78

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*} Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 43 (October 18, 2020 - October 24, 2020)[‡]

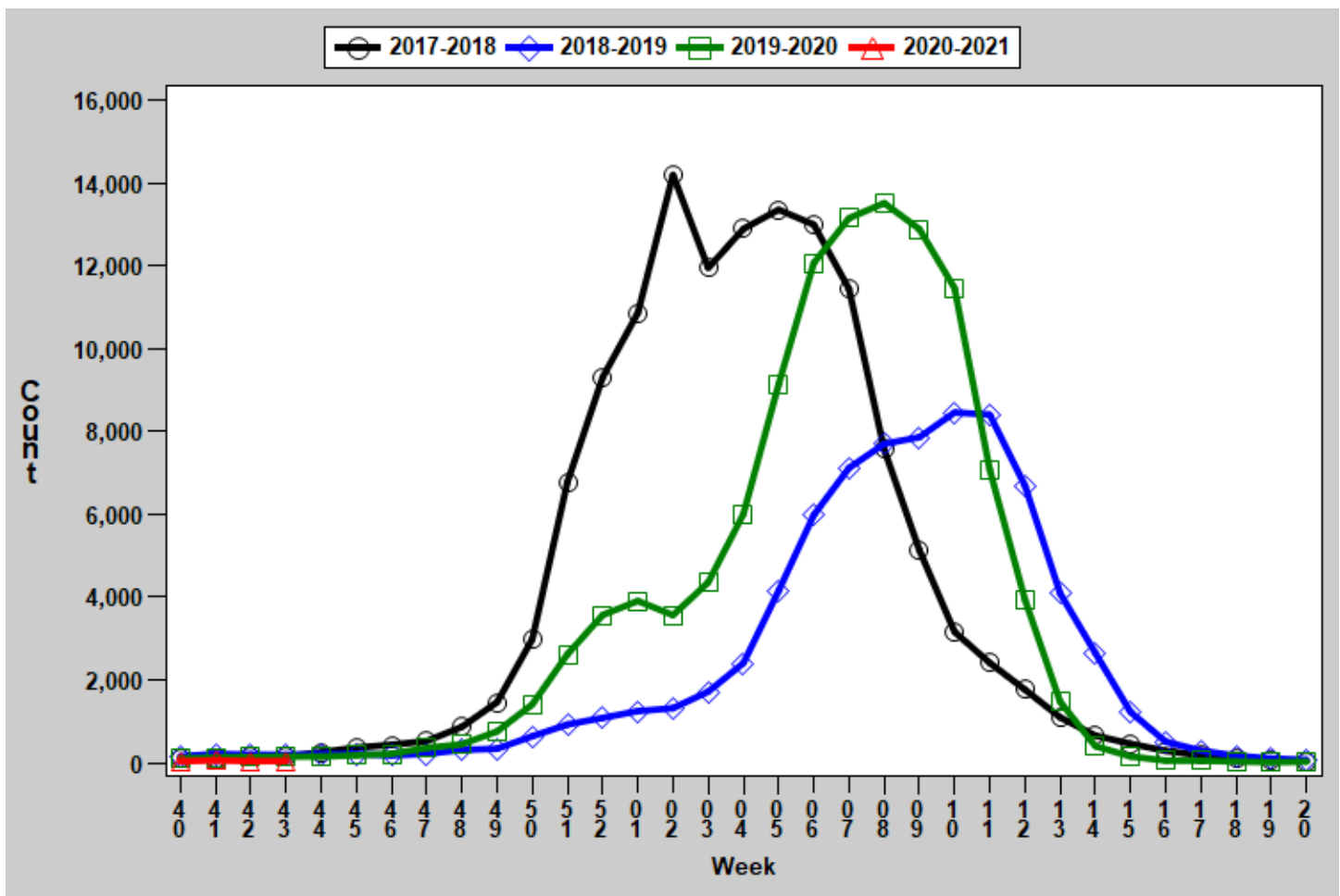
Region	Week 43 Cases	Week 43 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	0	0.00	5	0.74
Eastern	13	0.57	106	4.68
Northwest	4	0.25	15	0.94
Southeast	10	2.12	19	4.03
Southwest	13	1.21	24	2.24
Total	40	0.66	169	2.78

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

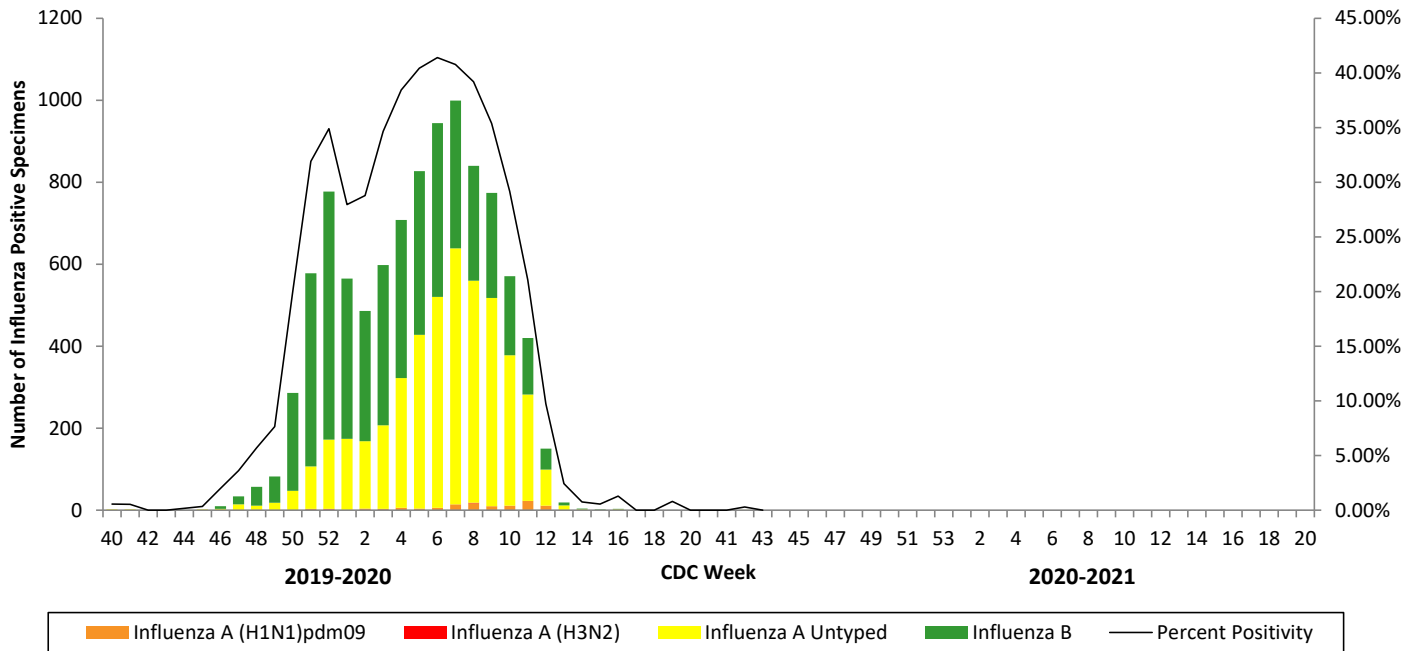
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021^{*}



[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

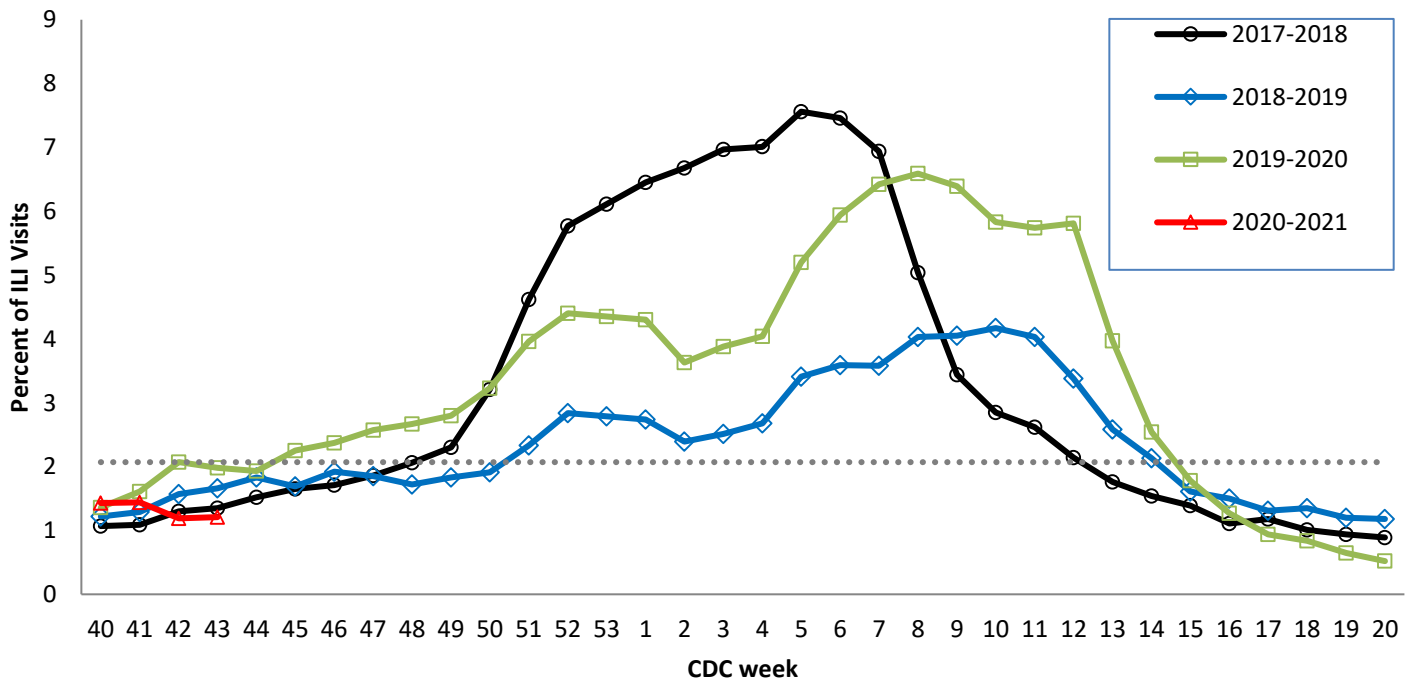
*2020-2021 season-to-date through the week ending May 15, 2021 (Week 20).Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 15, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

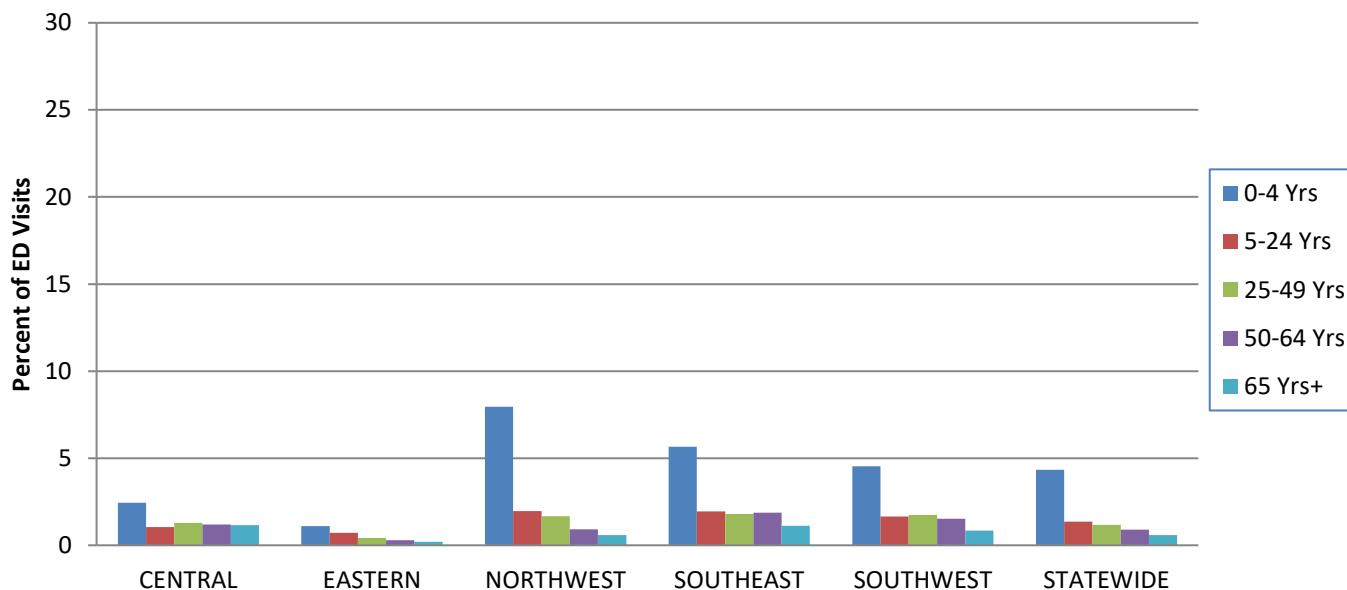


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

**There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

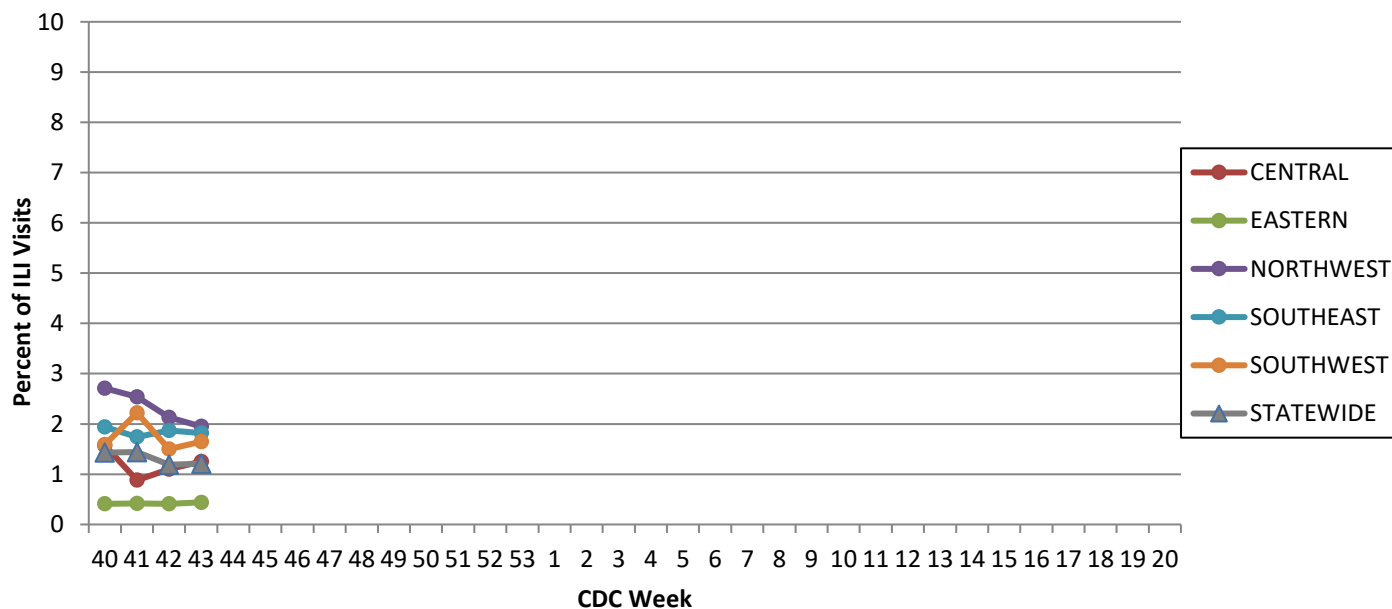
Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 43, 2020*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

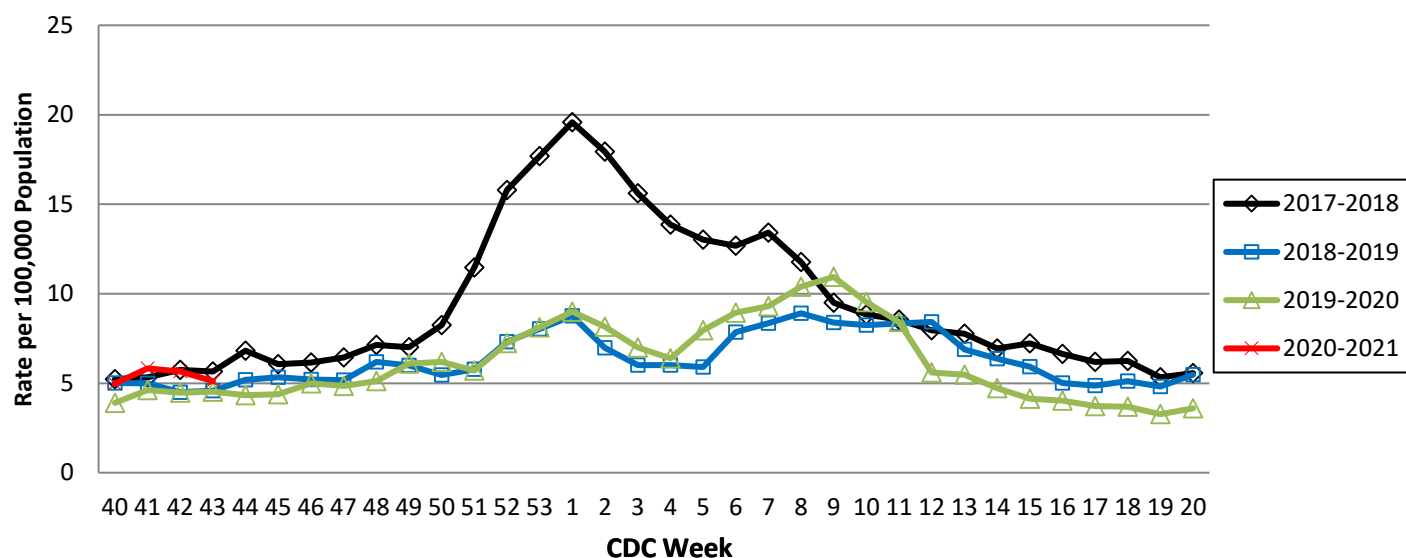
Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

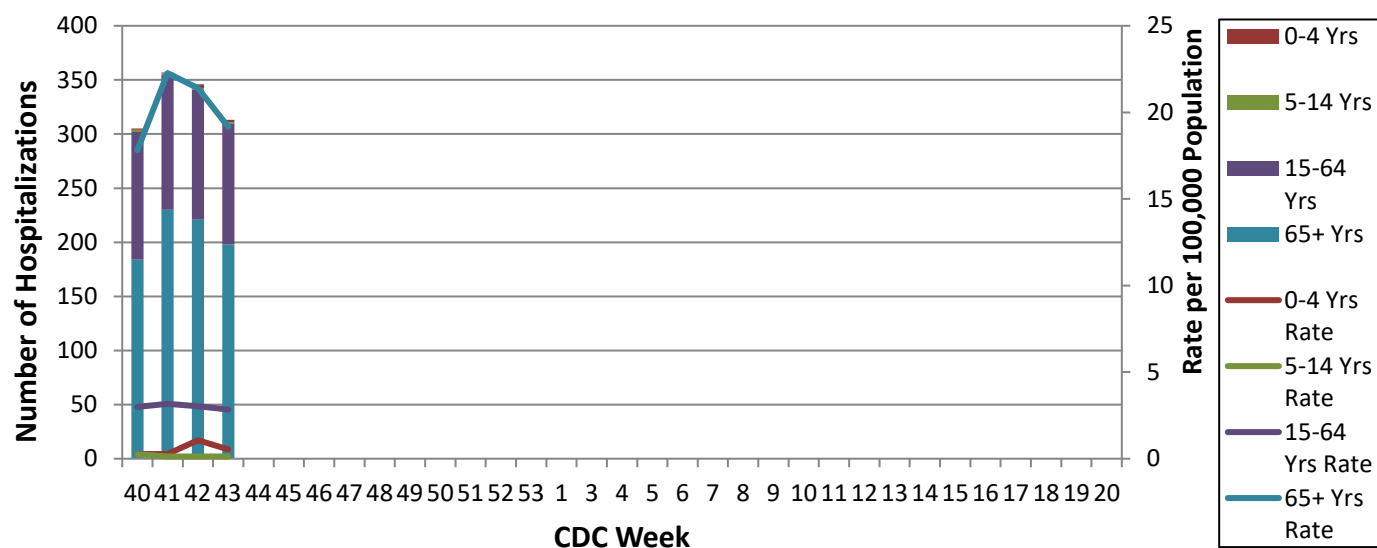
*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 43, 2020-2021 Influenza Season



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):

<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):

<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:

http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 44: October 25, 2020 – October 31, 2020

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 44 a total of 15 laboratory-positive³ influenza cases (9 influenza A and 6 influenza B) were reported. A season-to-date total of 191 laboratory-positive influenza cases (94 influenza A, 95 influenza B, and 2 untyped) have been reported in Missouri as of Week 44. The influenza type for cases reported season-to-date includes 49.2 % A, 49.7 % B and 1.1% untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 44. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 44 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 1.33% (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of one influenza-associated death has been reported in Missouri as of Week 44.⁵
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 44.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending September 25, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 44
- Reported Week-specific Rate per 100,000 Population, CDC Week 44
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Week 44 (October 25, 2020 – October 31, 2020)*

Influenza Type	Week 42	Week 43	Week 44	2019-2020* Season-to-Date
Influenza A	19	26	9	94
Influenza B	19	18	6	95
Influenza Unknown Or Untyped	0	2	0	2
Total	38	46	15	191

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 44 (October 25, 2020 – October 31, 2020)*

Age Group	Week 44 Cases	Week 44 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	3	0.80	19	5.08
05-24	2	0.12	40	2.49
25-49	6	0.31	59	3.08
50-64	2	0.16	39	3.15
65+	2	0.21	34	3.56
Total	15	0.25	191	3.14

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 44 (October 25, 2020 – October 31, 2020)*[‡]

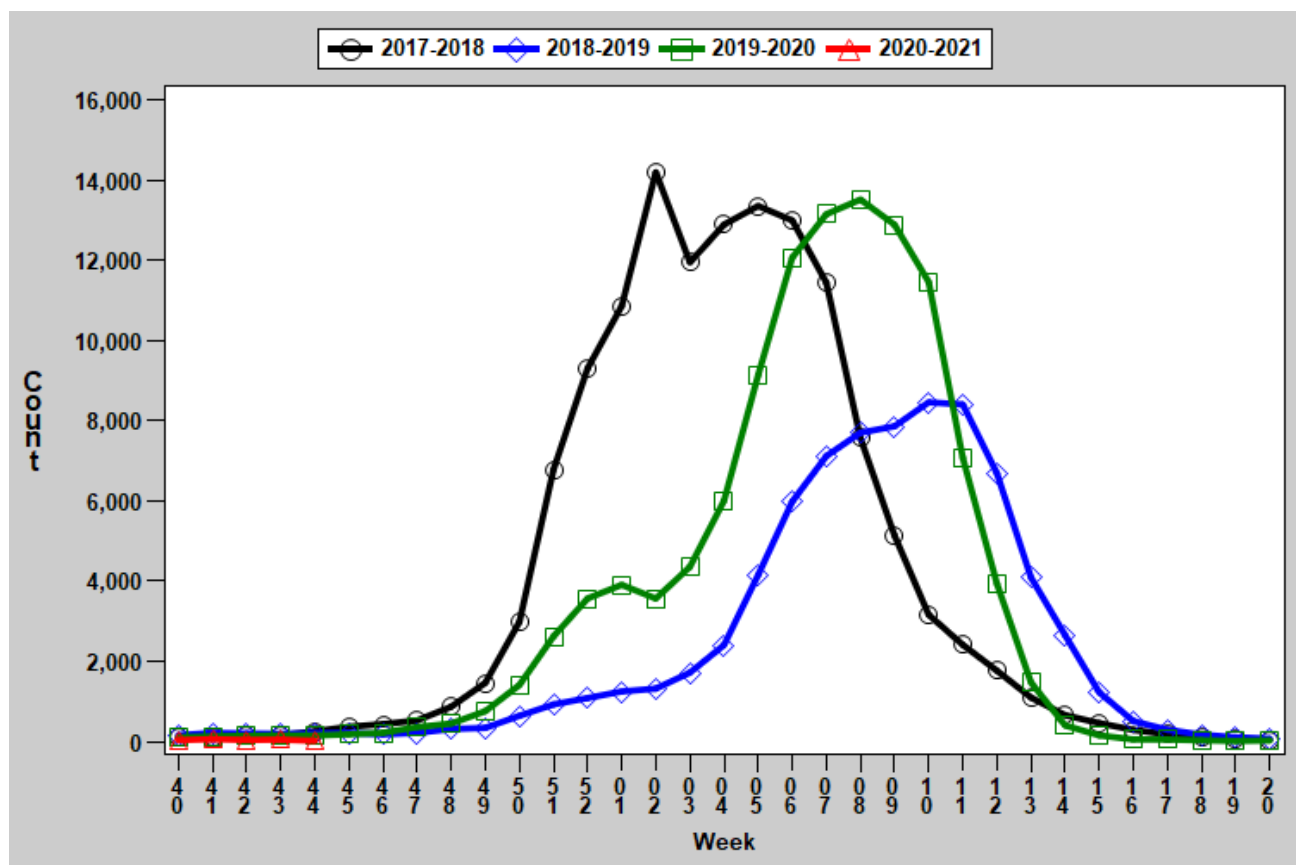
Region	Week 44 Cases	Week 44 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	0	0.00	5	0.74
Eastern	5	0.22	112	4.94
Northwest	2	0.13	17	1.06
Southeast	7	1.48	31	6.57
Southwest	1	0.09	26	2.43
Total	15	0.25	191	3.14

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

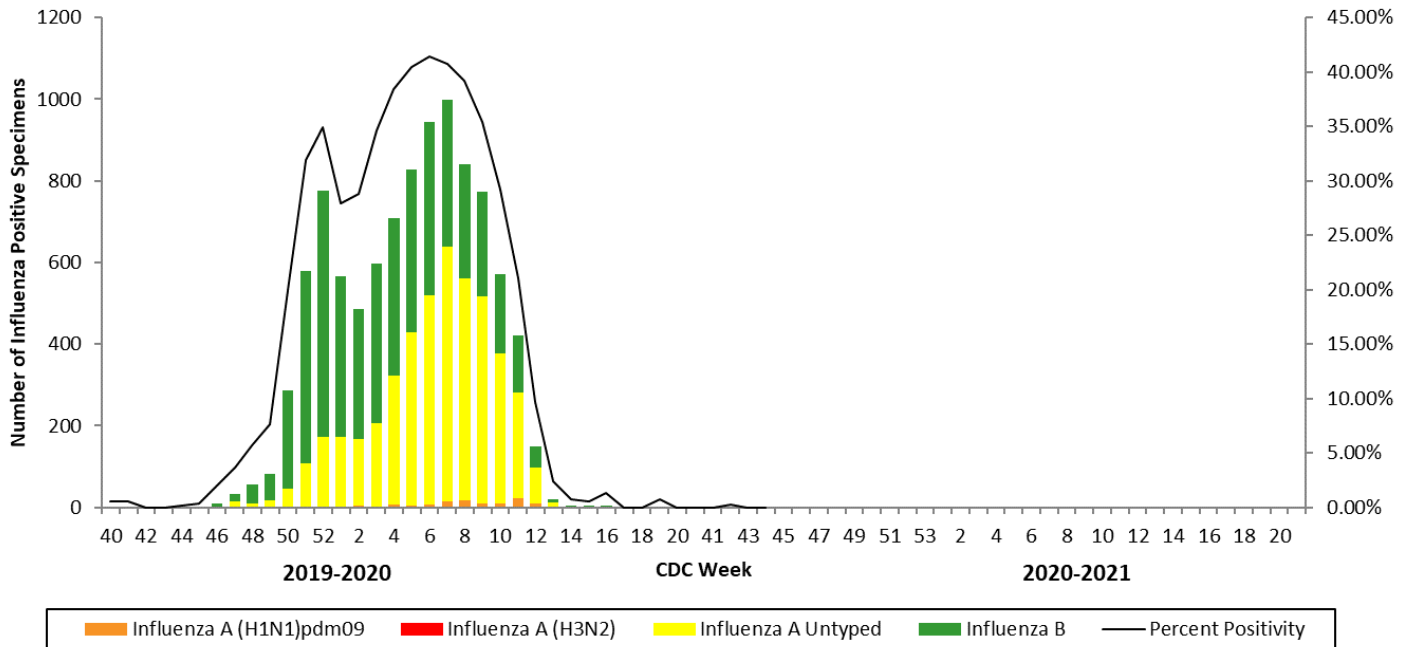
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021*



[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

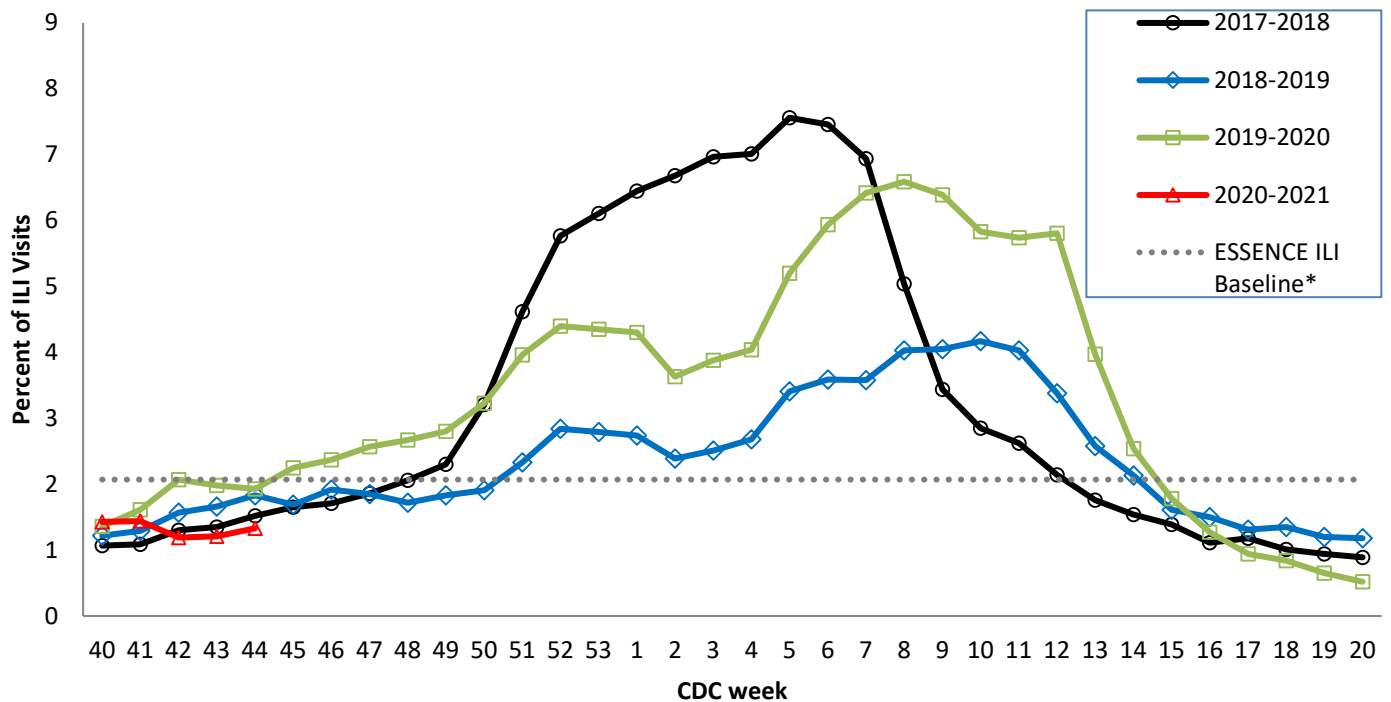
*2020-2021 season-to-date through the week ending May 15, 2021 (Week 20). Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC). 2020-2021 season-to-date through the week ending May 15, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

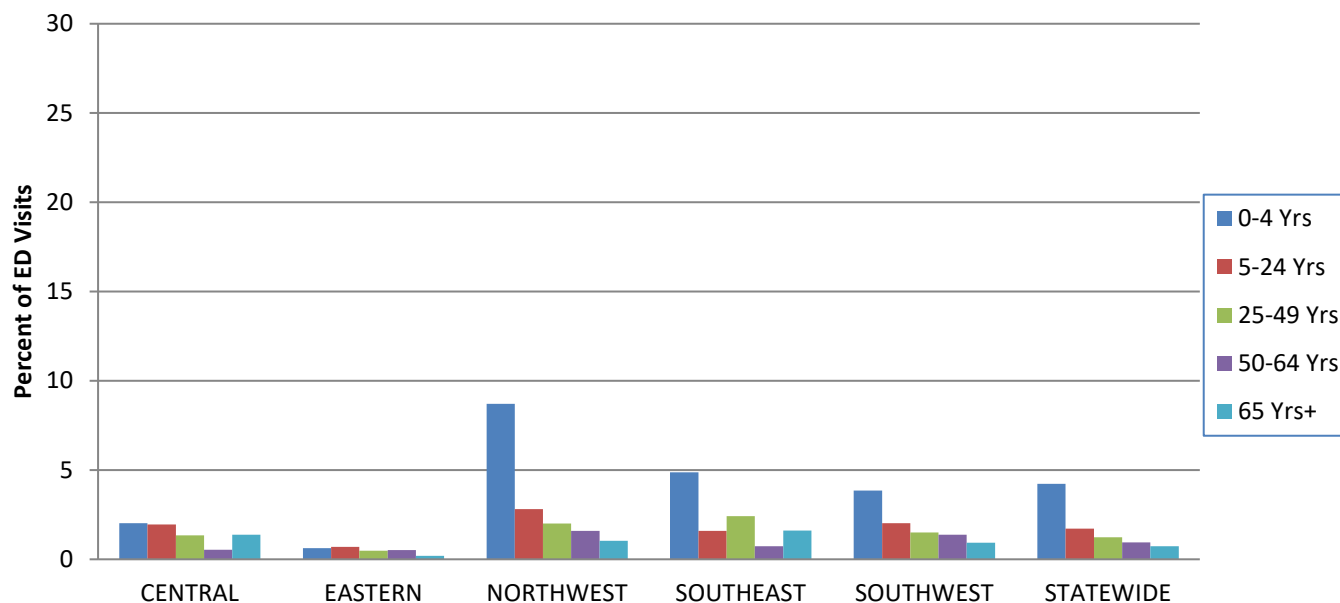


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

**There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

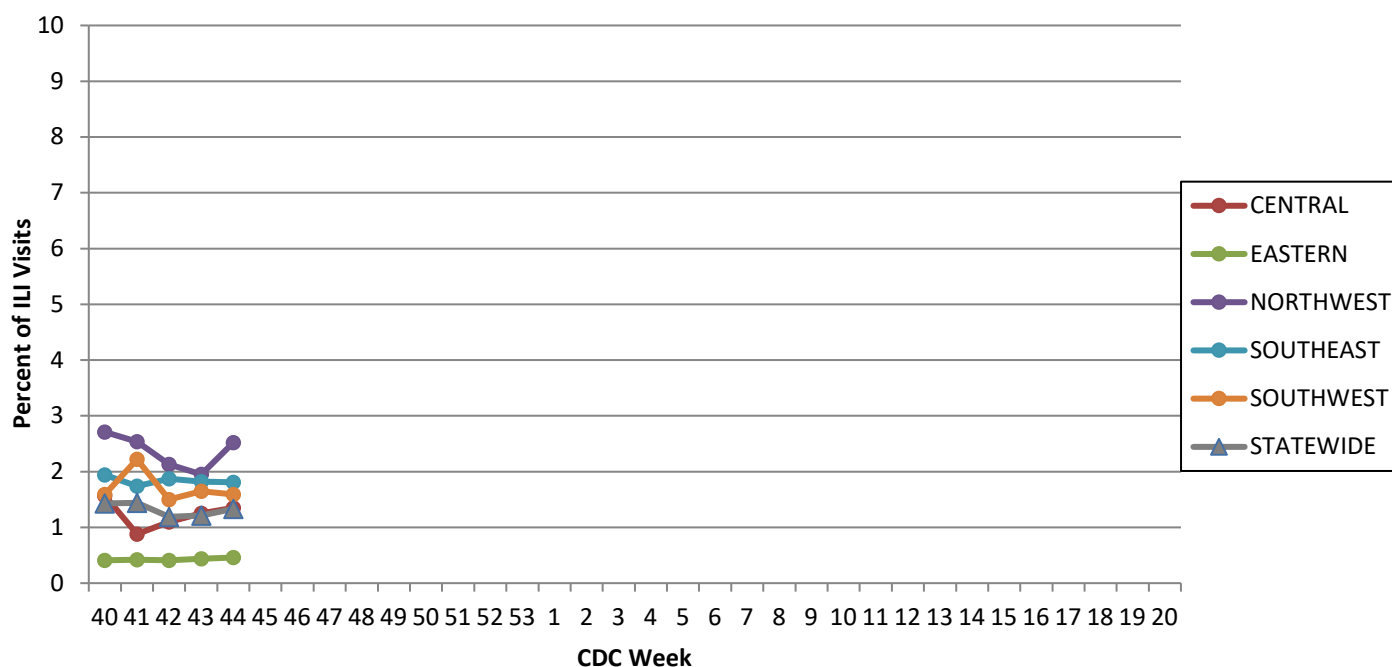
Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 44, 2020*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

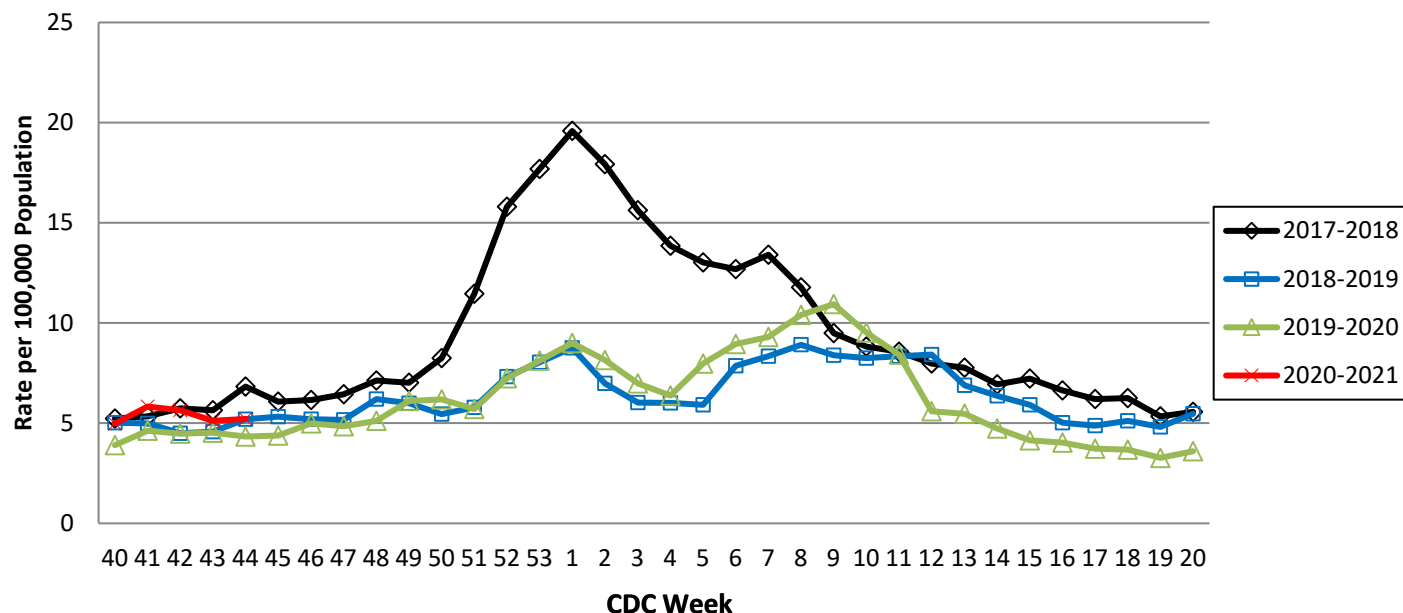
Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

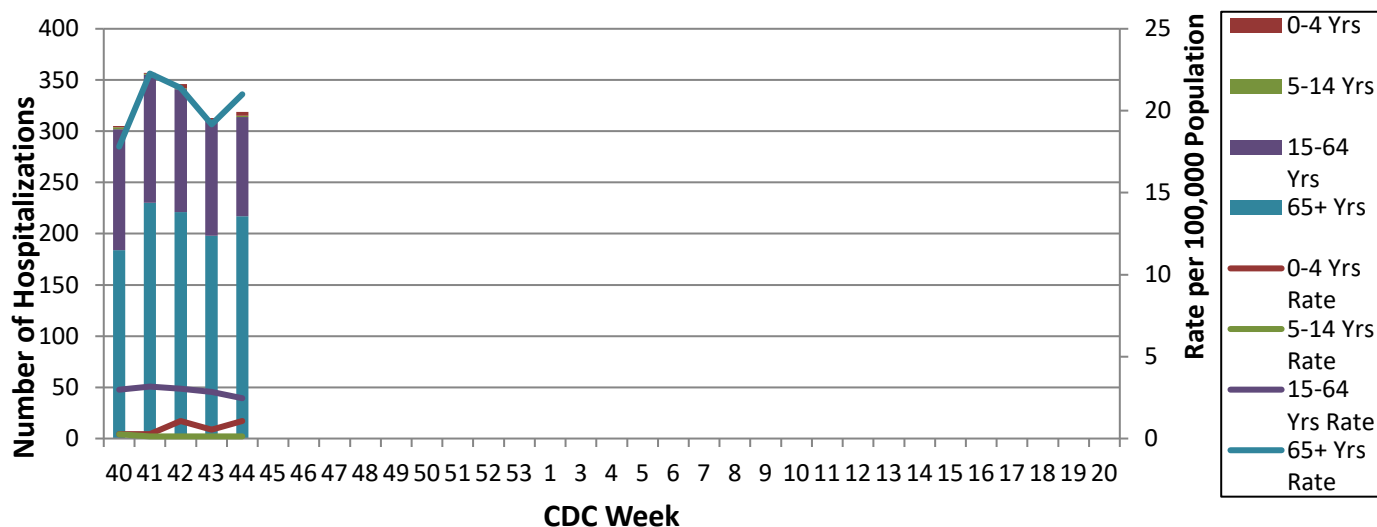
*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 44, 2020-2021 Influenza Season



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):
<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):
<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 45: November 1, 2020 – November 7, 2020

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 45 a total of 45 laboratory-positive³ influenza cases (21 influenza A and 24 influenza B) were reported. A season-to-date total of 251 laboratory-positive influenza cases (127 influenza A, 122 influenza B, and 2 untyped) have been reported in Missouri as of Week 45. The influenza type for cases reported season-to-date includes 50.1 % A, 48.6 % B and 0.8 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 45. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 45 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 1.41% (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of one influenza-associated death has been reported in Missouri as of Week 45.⁵
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 45.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIfevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 45
- Reported Week-specific Rate per 100,000 Population, CDC Week 45
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Week 45 (November 1 – November 7, 2020)*

Influenza Type	Week 43	Week 44	Week 45	2020-2021* Season-to-Date
Influenza A	31	16	21	127
Influenza B	18	9	24	122
Influenza Unknown Or Untyped	2	0	0	2
Total	51	25	45	251

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 45 (November 1 – November 7, 2020)*[‡]

Age Group	Week 45 Cases	Week 45 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	4	1.07	24	6.41
05-24	14	0.87	56	3.49
25-49	14	0.73	77	4.02
50-64	6	0.49	48	3.88
65+	7	0.73	46	4.82
Total	45	0.74	251	4.13

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 45 (November 1, 2020 – November 7, 2020)[‡]

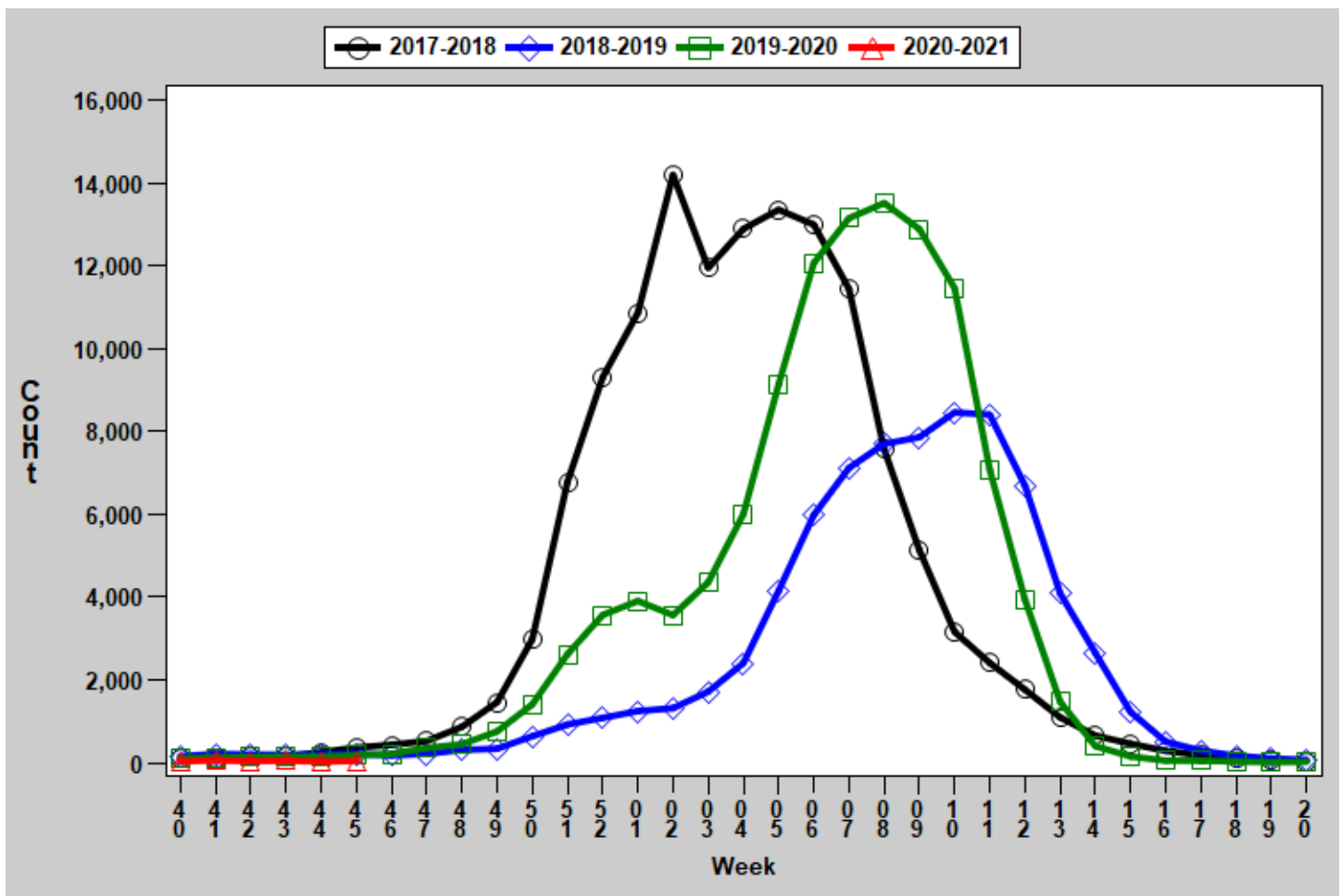
Region	Week 45 Cases	Week 45 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	2	0.30	7	1.03
Eastern	27	1.19	152	6.71
Northwest	3	0.19	20	1.25
Southeast	3	0.64	34	7.21
Southwest	10	0.93	38	3.55
Total	45	0.74	251	4.13

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

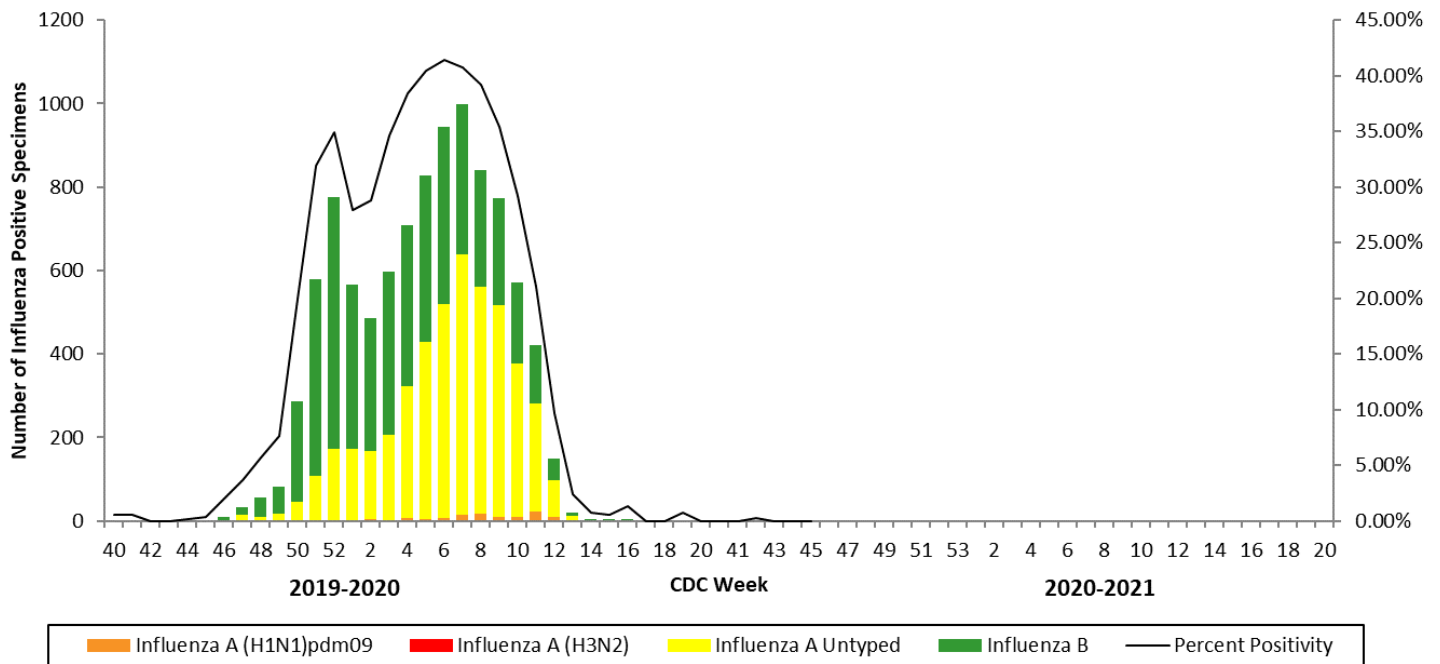
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021*



[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

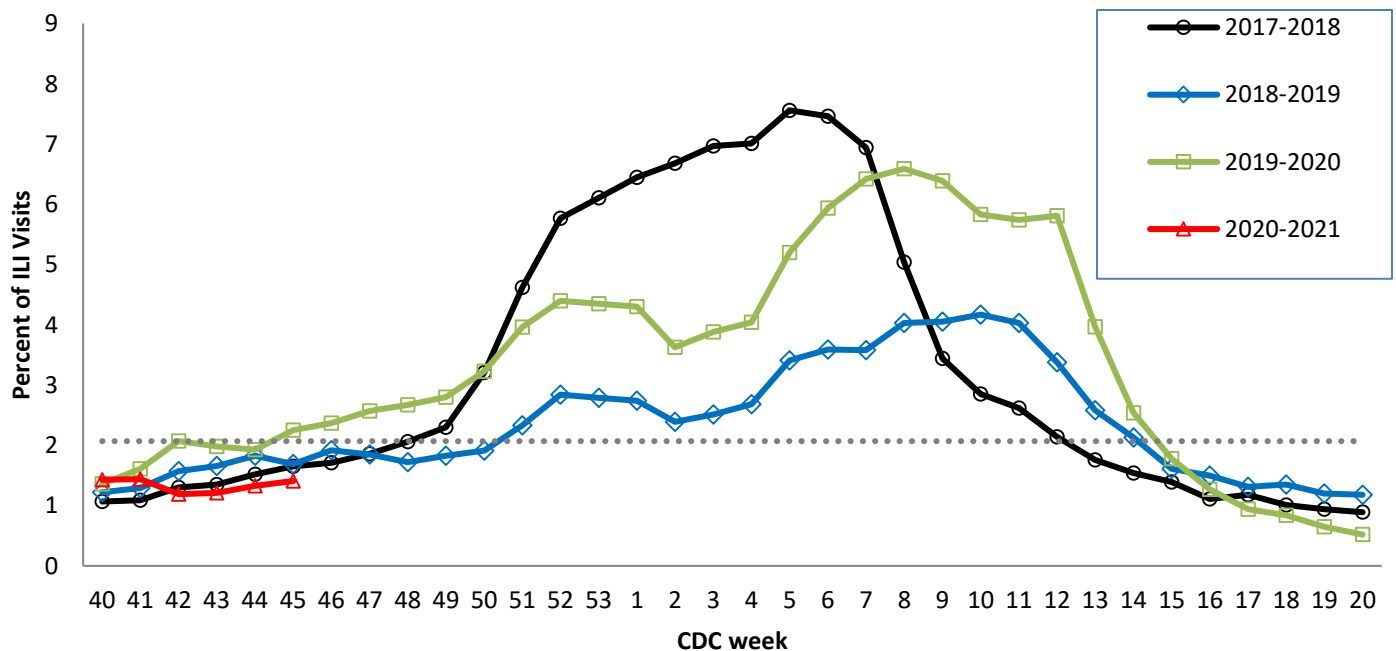
*2020-2021 season-to-date through the week ending May 22, 2021 (Week 20). Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

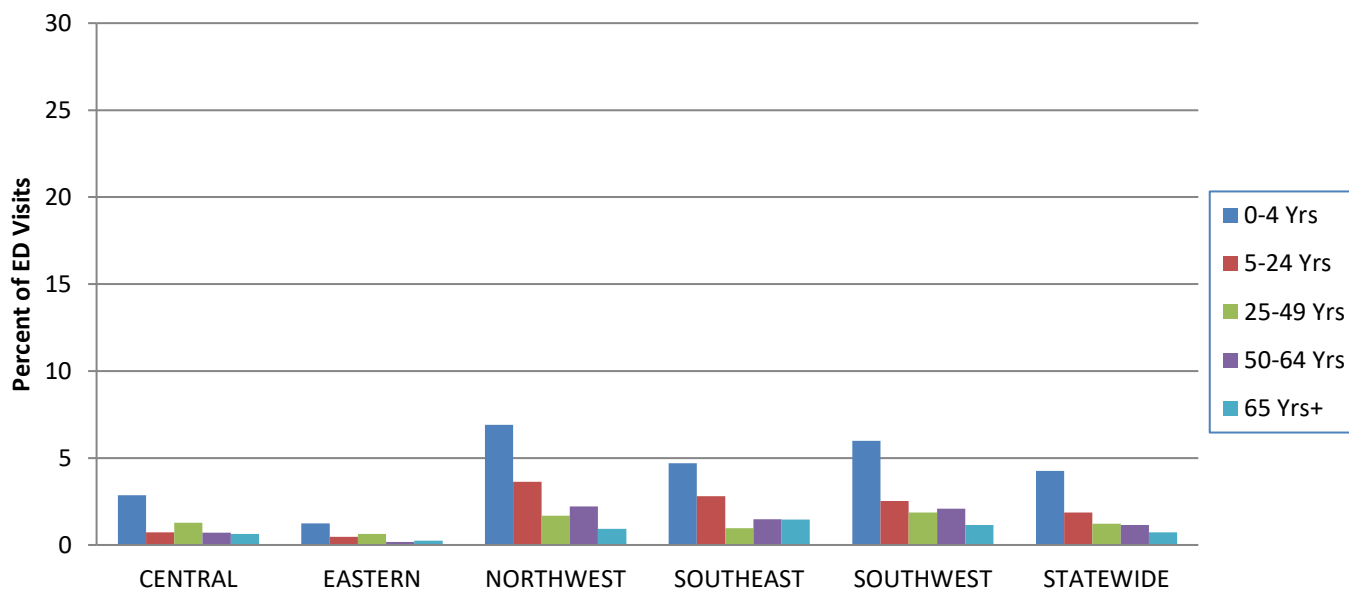


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

**There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

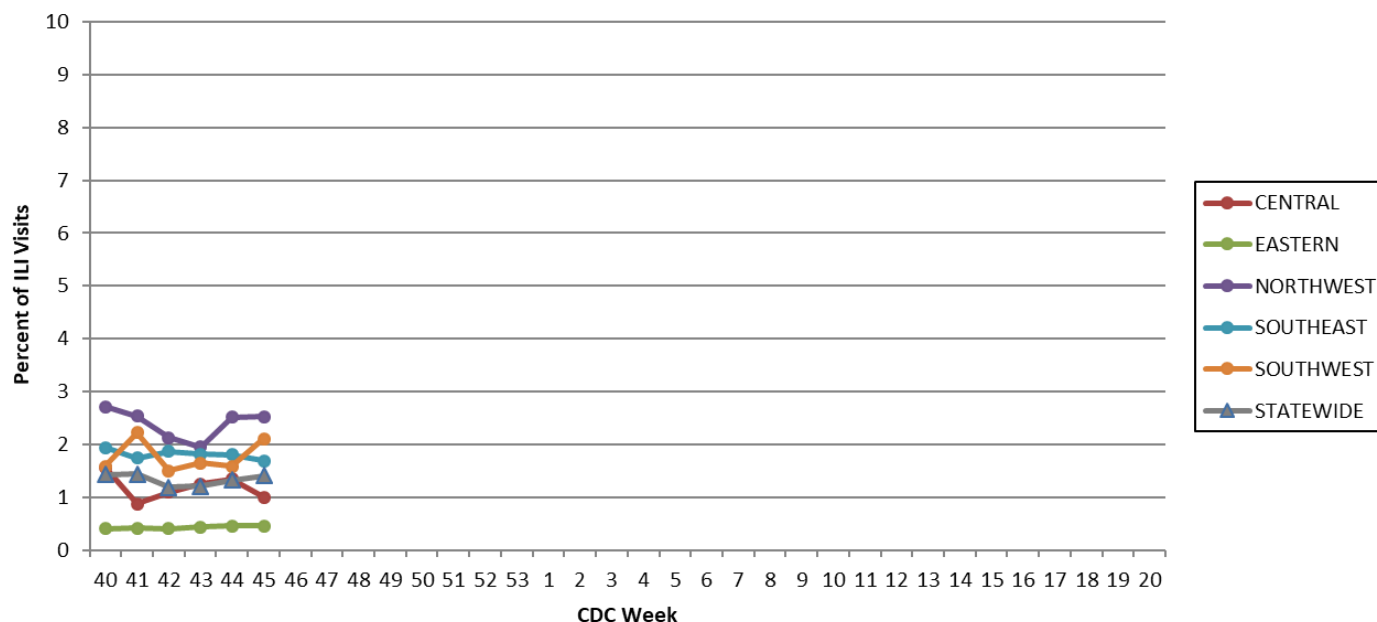
Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 45, 2020*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

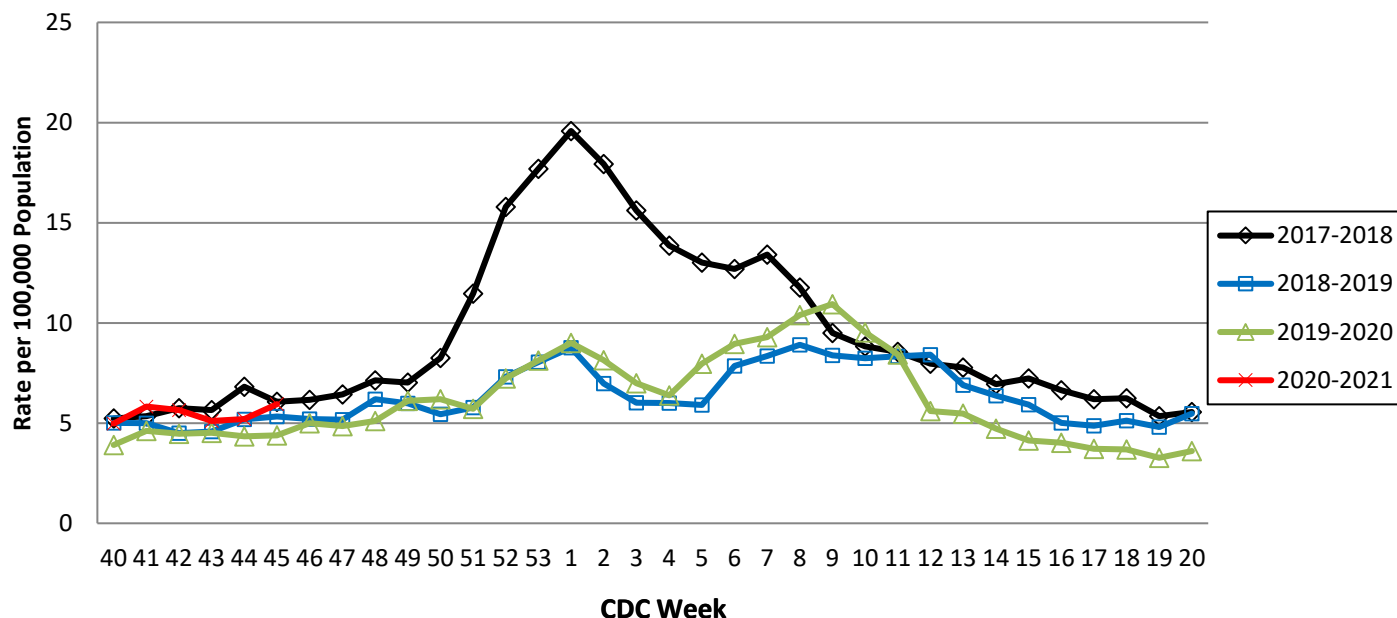
Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

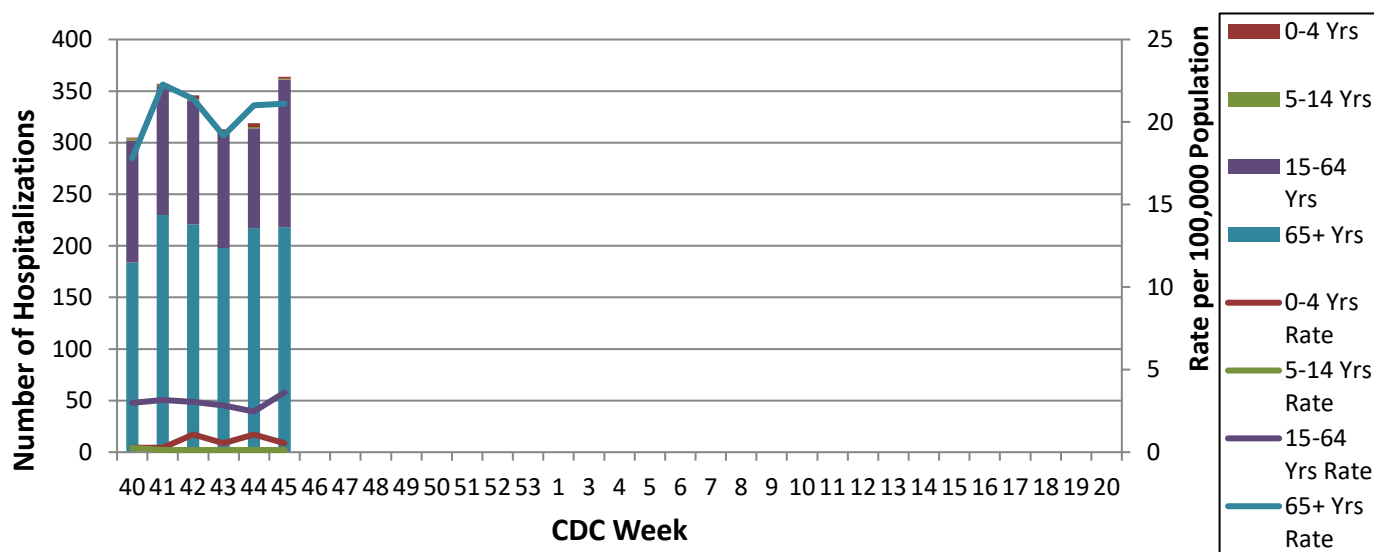
*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 45, 2020-2021 Influenza Season



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):
<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):
<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 46: November 8, 2020 – November 14, 2020

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 46, a total of 38 laboratory-positive³ influenza cases (15 influenza A and 23 influenza B) were reported. A season-to-date total of 312 laboratory-positive influenza cases (159 influenza A, 151 influenza B, and 2 untyped) have been reported in Missouri as of Week 46. The influenza type for cases reported season-to-date includes 51.0 % A, 48.4 % B and 0.6 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 46. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 46 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 1.51% (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of one influenza-associated death has been reported in Missouri as of Week 46.⁵
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 46.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 46
- Reported Week-specific Rate per 100,000 Population, CDC Week 46
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Week 46 (November 8 – November 14, 2020)^{*}

Influenza Type	Week 44	Week 45	Week 46	2020-2021* Season-to-Date
Influenza A	17	25	15	159
Influenza B	9	28	23	151
Influenza Unknown Or Untyped	0	0	0	2
Total	26	53	38	312

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*}Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 46 (November 8 – November 14, 2020)^{*}

Age Group	Week 46 Cases	Week 46 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	4	1.07	30	8.01
05-24	10	0.62	76	4.74
25-49	3	0.16	84	4.39
50-64	11	0.89	63	5.10
65+	10	1.05	59	6.18
Total	38	0.62	312	5.13

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*}Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 46 (November 8, 2020 – November 14, 2020)^{}**

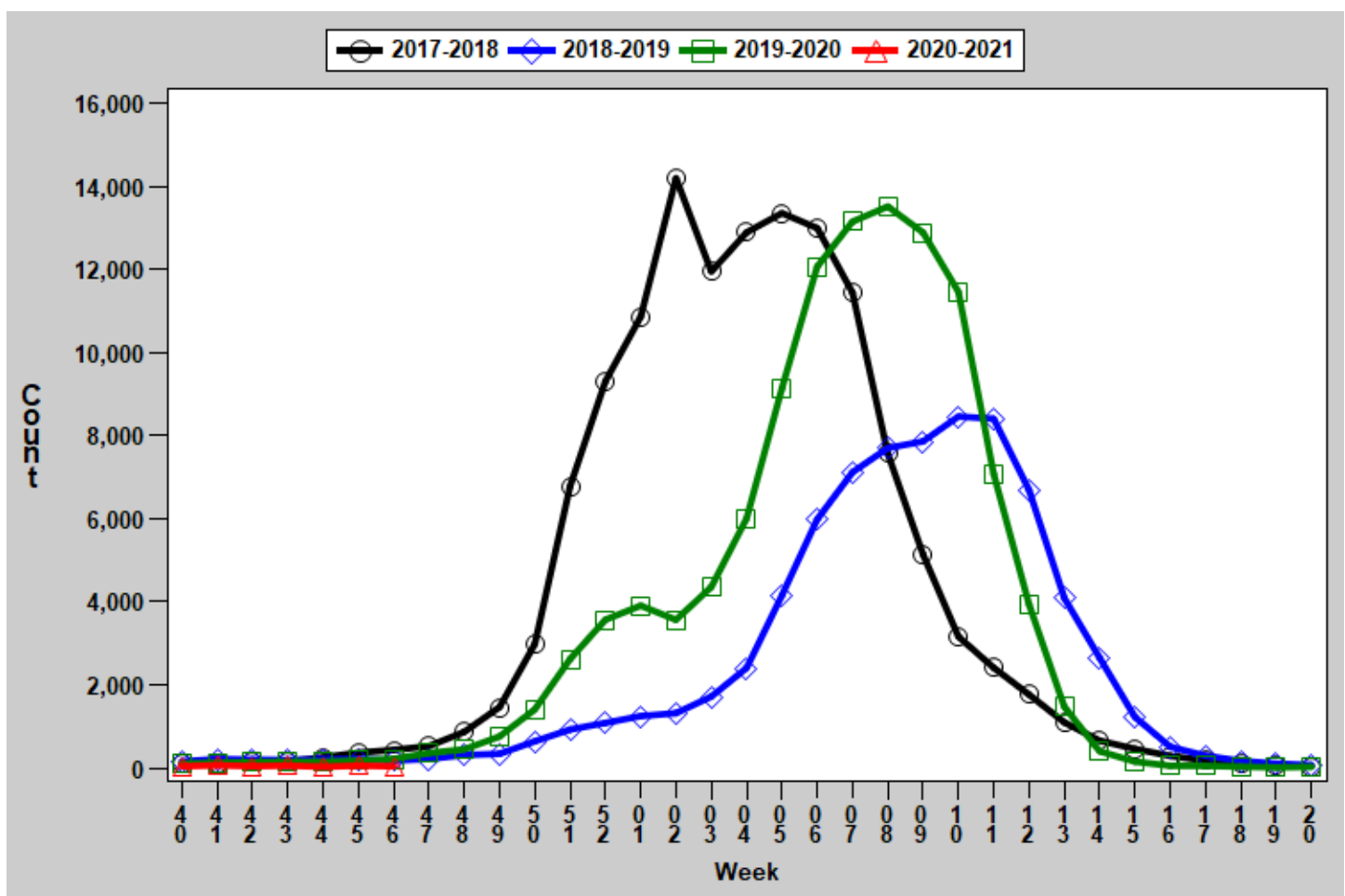
Region	Week 46 Cases	Week 46 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	1	0.15	8	1.18
Eastern	18	0.79	172	7.59
Northwest	2	0.13	35	2.19
Southeast	10	2.12	49	10.39
Southwest	7	0.65	48	4.48
Total	38	0.62	312	5.13

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*}Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

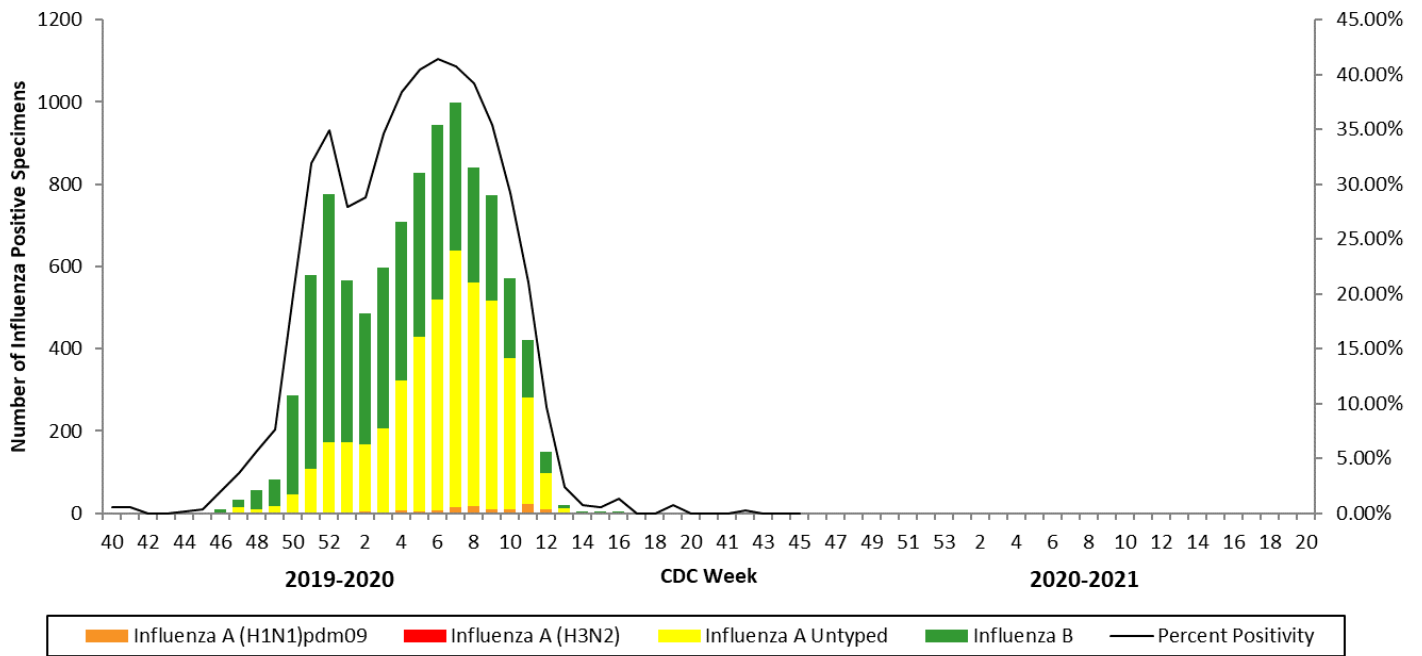
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021^{*}



[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

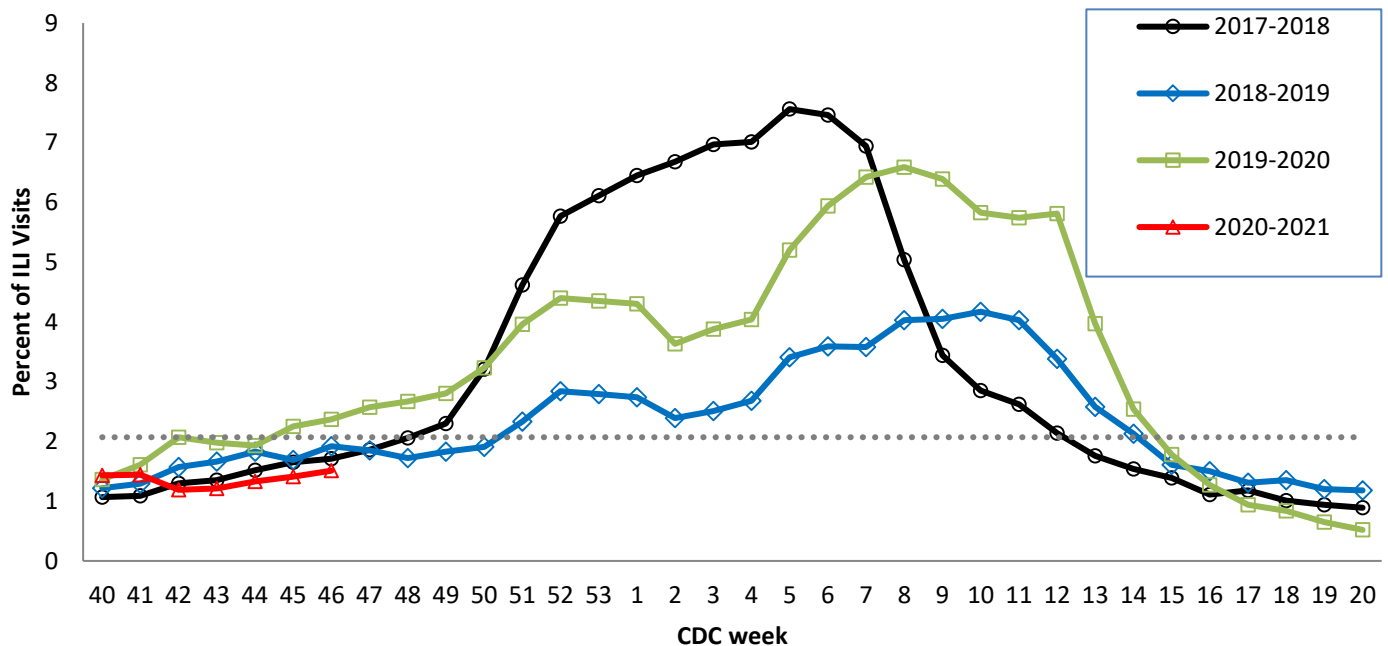
^{*}2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

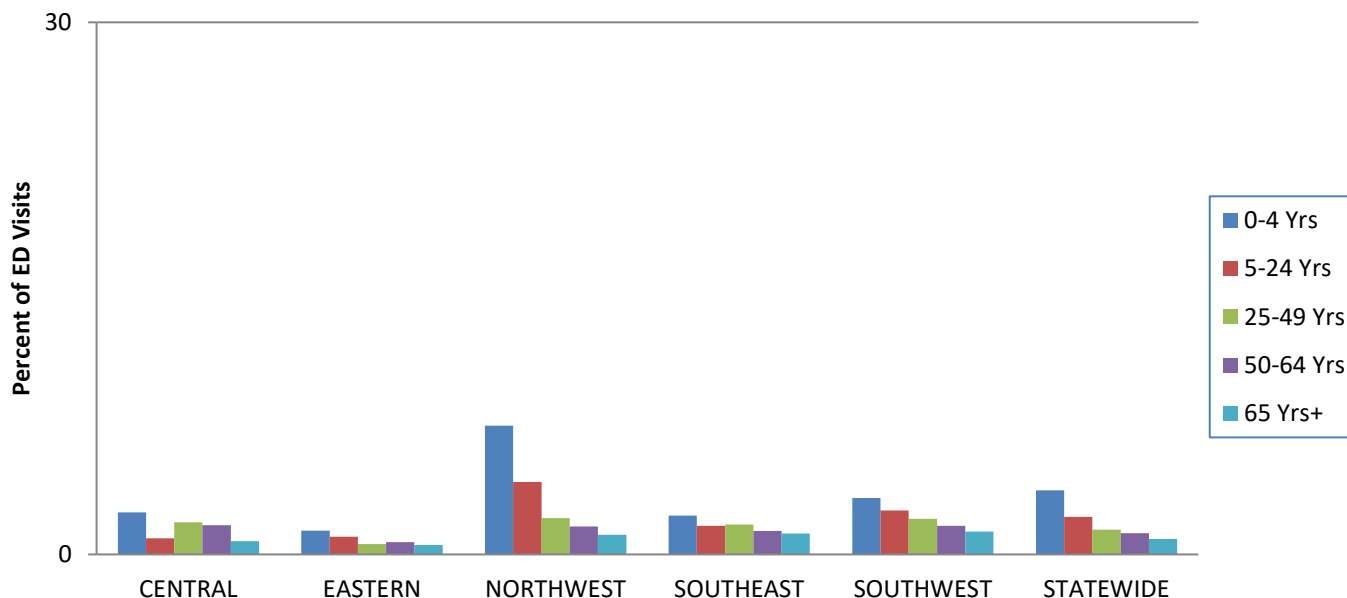


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

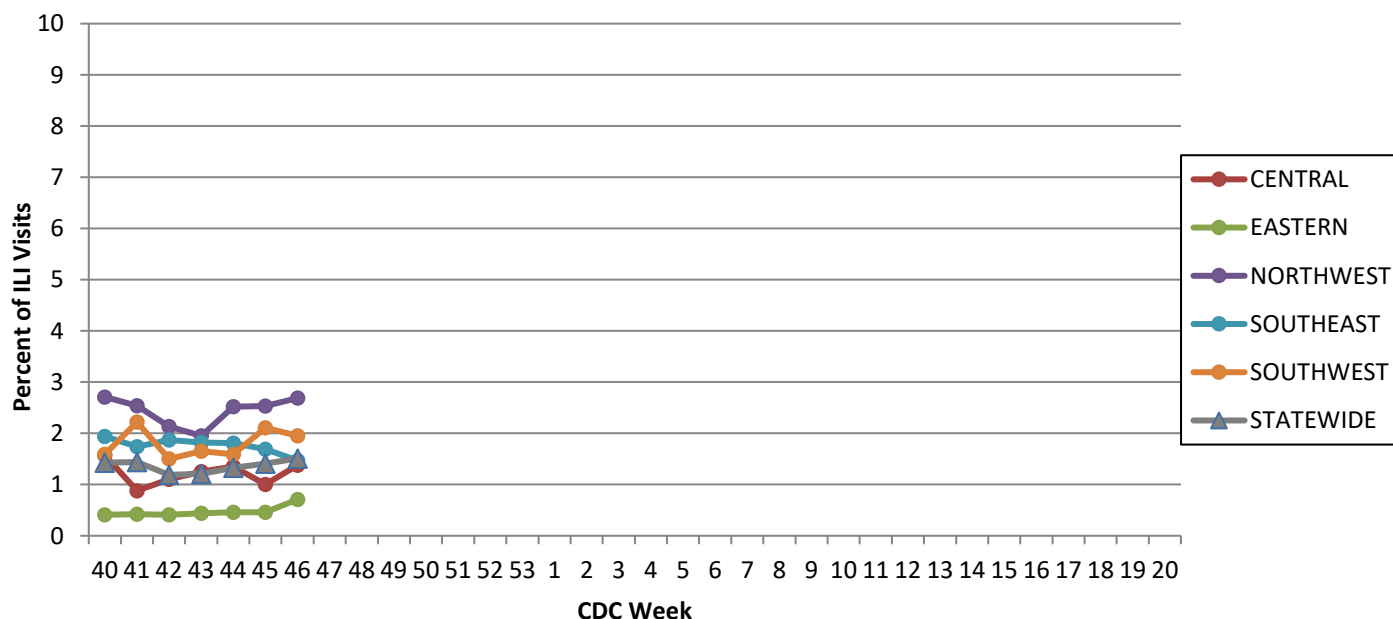
**There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 46, 2020*



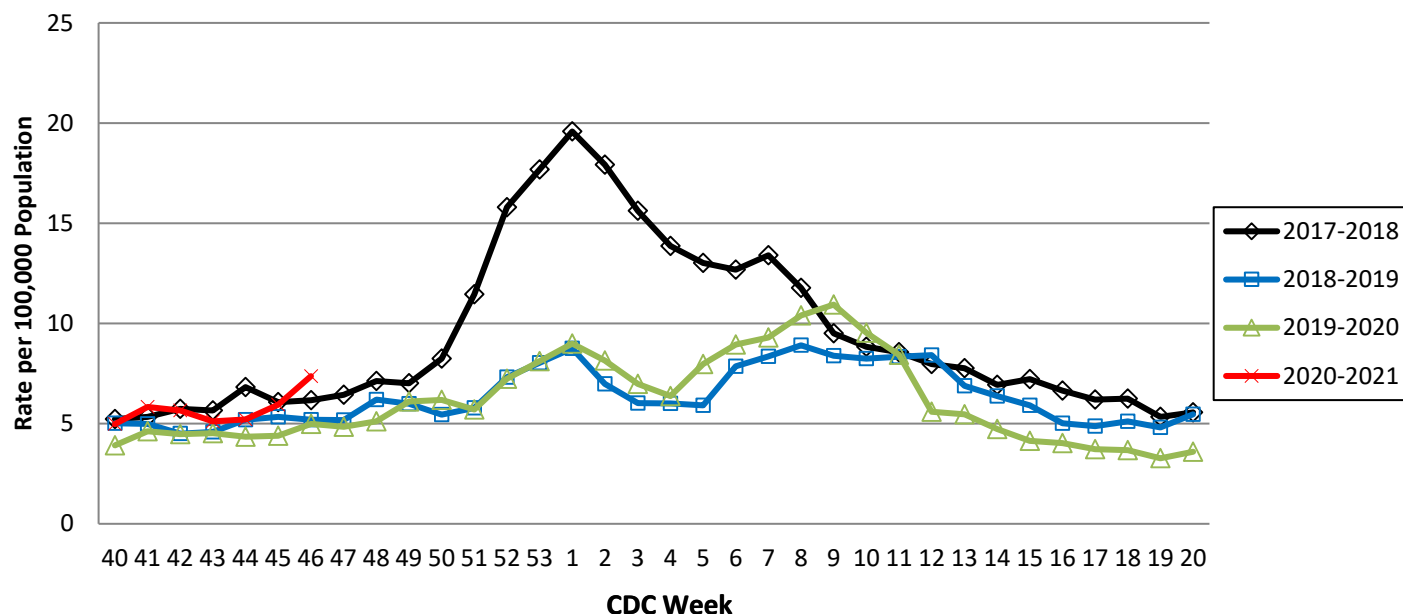
Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.
 *The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



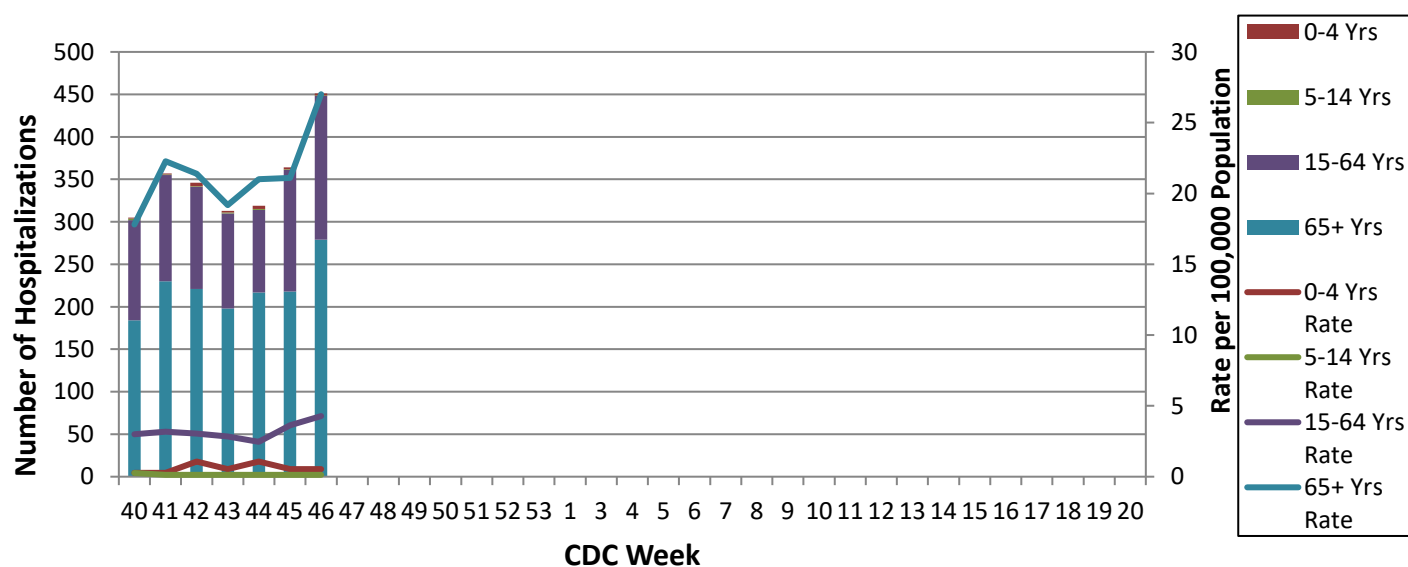
Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.
 *The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
 Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).
 *There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 46, 2020-2021 Influenza Season



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):
<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):
<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 47: November 15, 2020 – November 21, 2020

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 47 a total of 35 laboratory-positive³ influenza cases (12 influenza A and 23 influenza B) were reported. A season-to-date total of 390 laboratory-positive influenza cases (190 influenza A, 198 influenza B, and 2 untyped) have been reported in Missouri as of Week 47. The influenza type for cases reported season-to-date includes 48.7% A, 50.8% B and 0.5% untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 47. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 47 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 1.63% (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of one influenza-associated death has been reported in Missouri as of Week 47.⁵
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 47.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIfevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 47
- Reported Week-specific Rate per 100,000 Population, CDC Week 47
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Week 47 (November 15 – November 21, 2020)^{*}

Influenza Type	Week 45	Week 46	Week 47	2020-2021* Season-to-Date
Influenza A	28	21	12	190
Influenza B	30	32	23	198
Influenza Unknown Or Untyped	0	0	0	2
Total	58	53	35	390

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*} Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 47 (November 15 – November 21, 2020)^{}**

Age Group	Week 47 Cases	Week 47 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	1	0.27	30	8.82
05-24	10	0.62	99	6.17
25-49	13	0.68	111	5.80
50-64	4	0.32	77	6.23
65+	7	0.73	71	7.44
Total	35	0.58	391	6.43

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*} Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 47 (November 15, 2020 – November 21, 2020)^{*,‡}

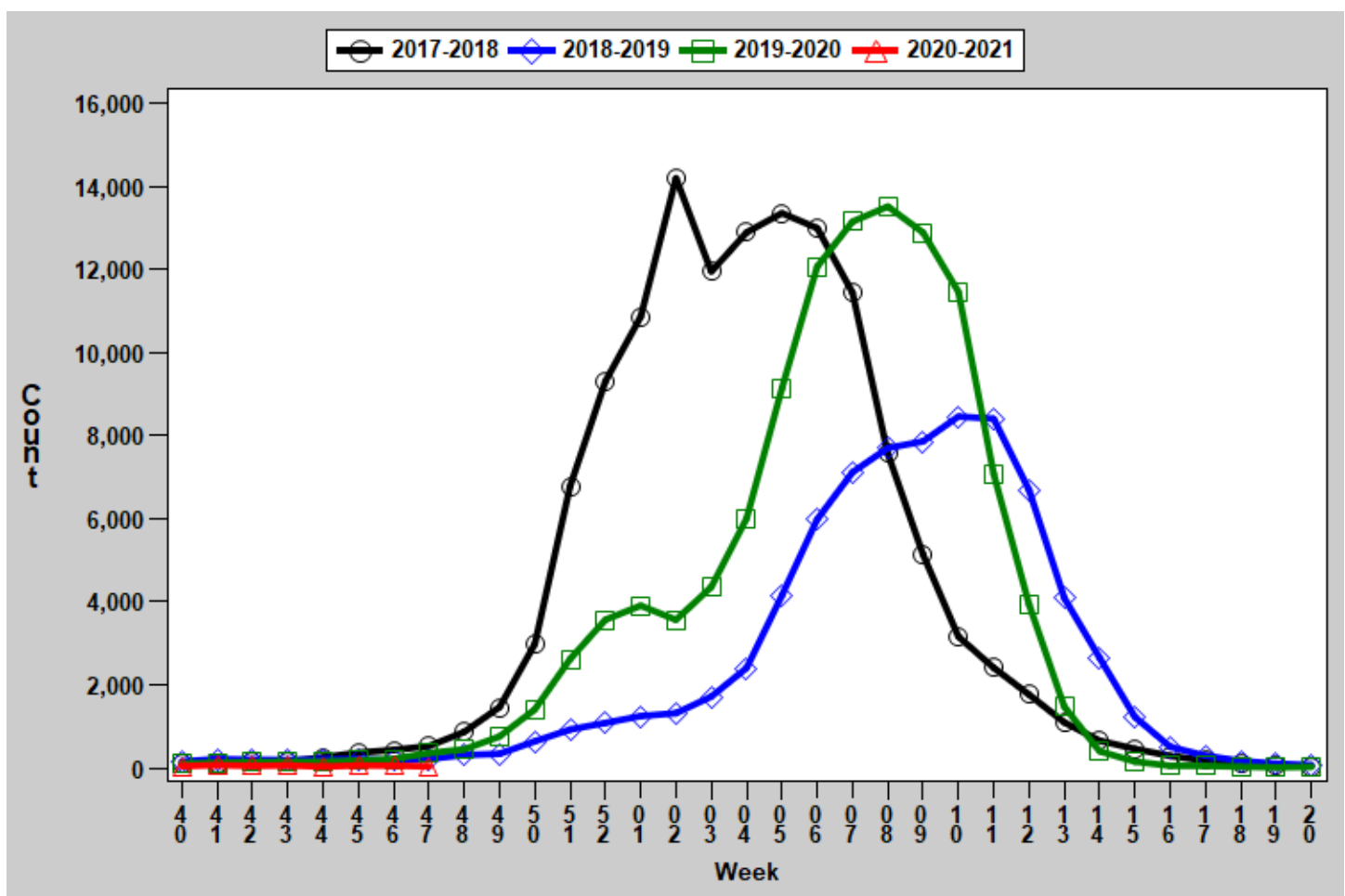
Region	Week 47 Cases	Week 47 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	8	1.18	30	4.43
Eastern	11	0.49	190	8.38
Northwest	1	0.06	49	3.07
Southeast	4	0.85	62	13.14
Southwest	11	1.03	60	5.60
Total	35	0.58	391	6.43

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*}Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

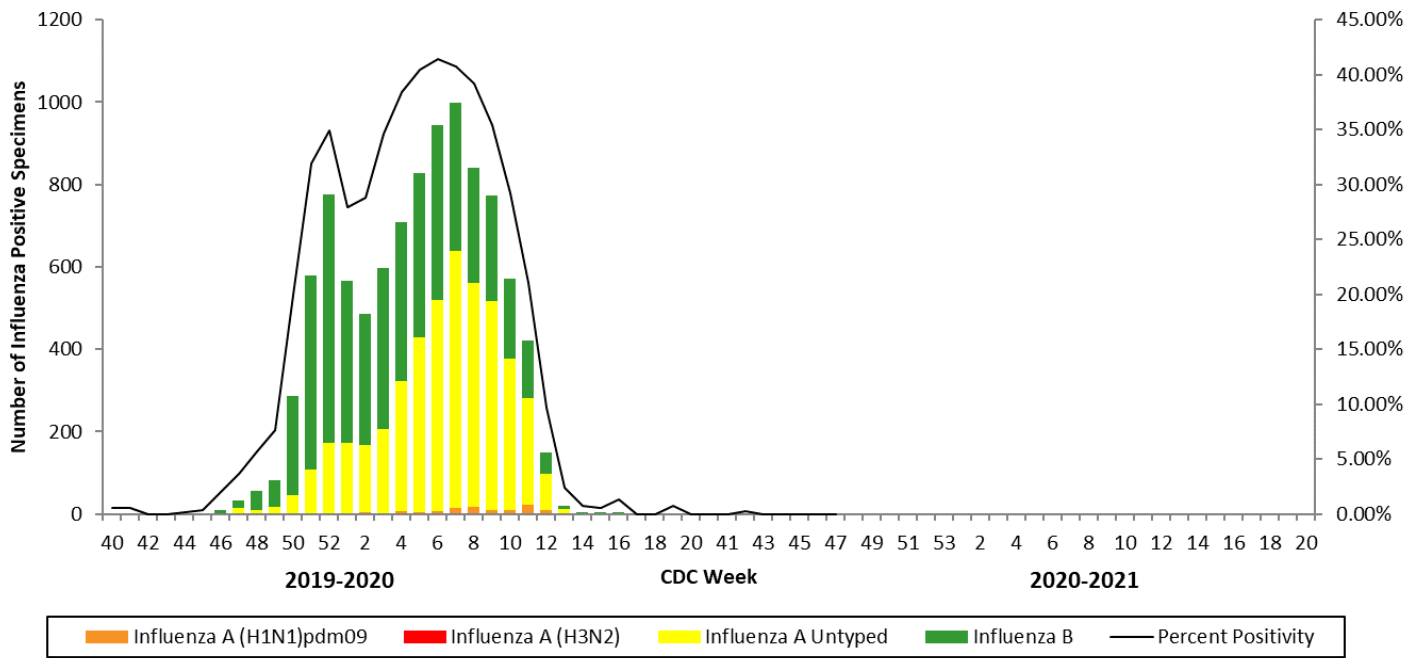
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021^{*}



[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

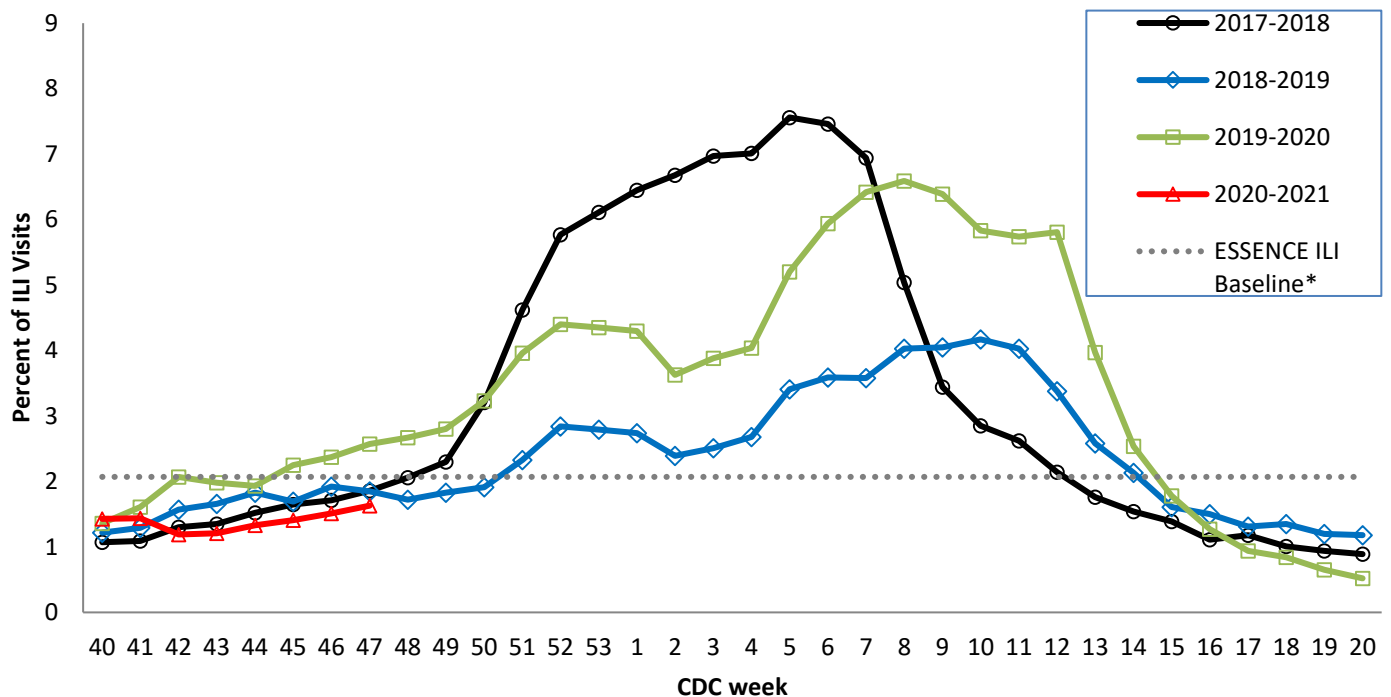
^{*}2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

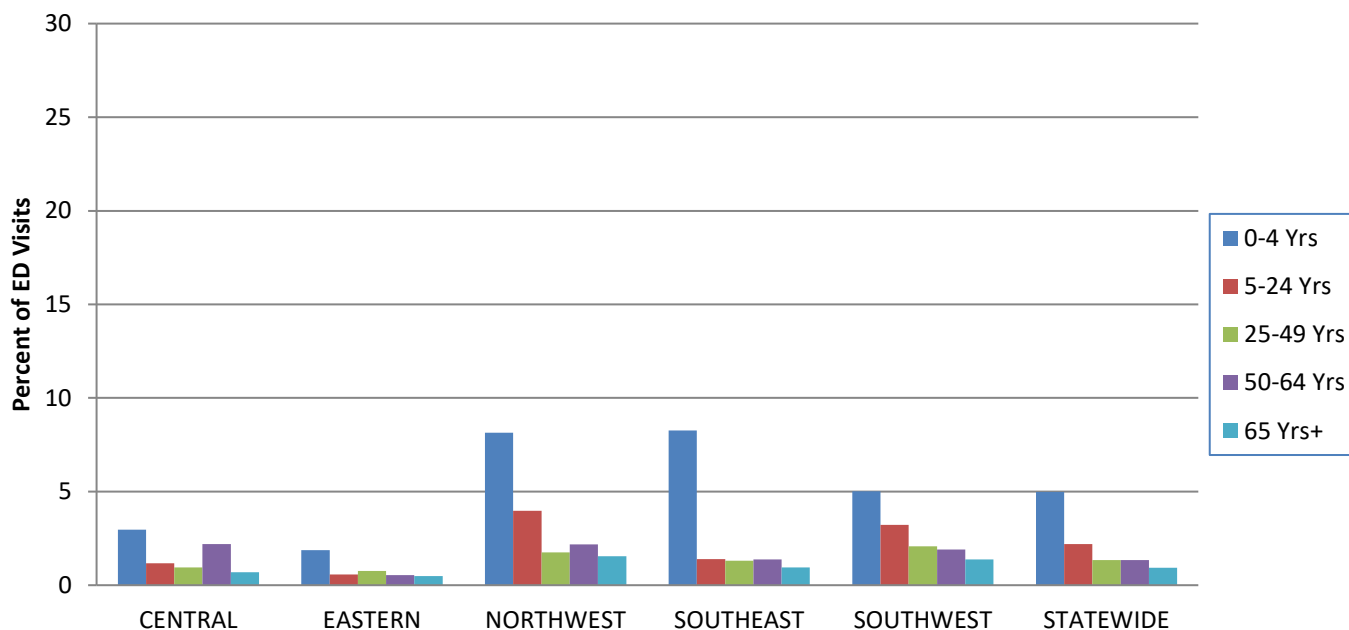


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

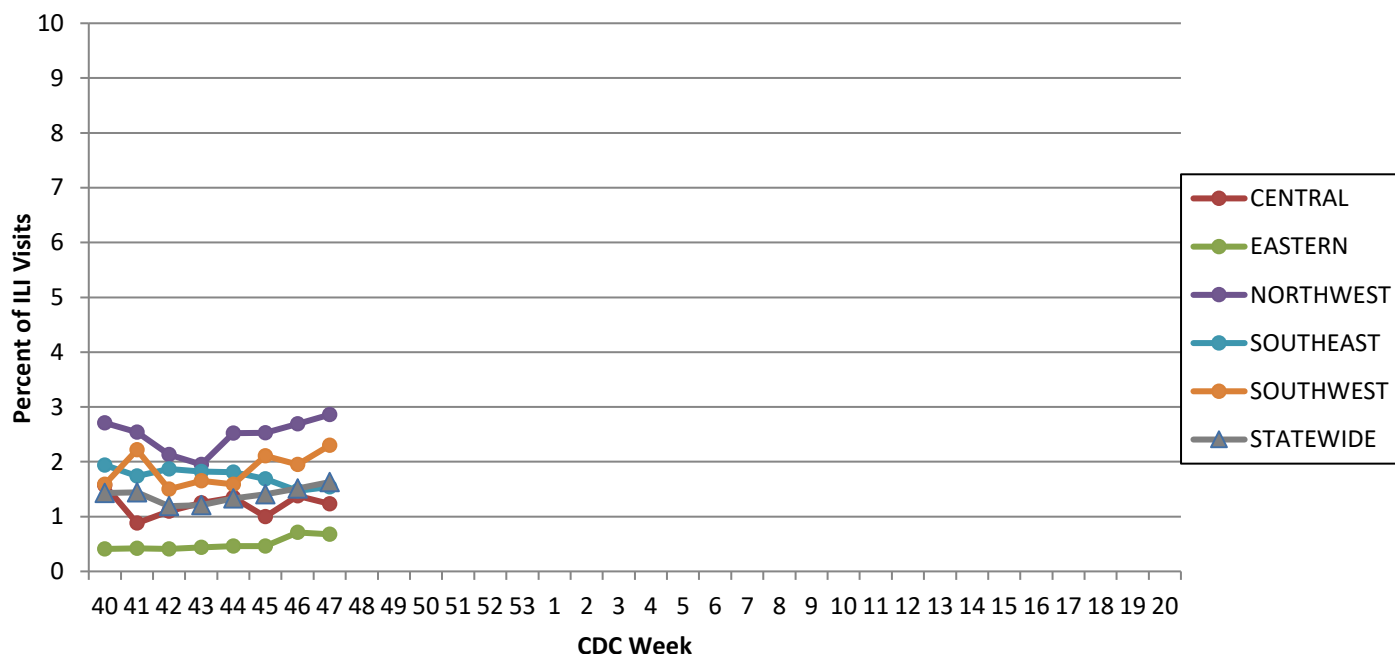
**There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 47, 2020*



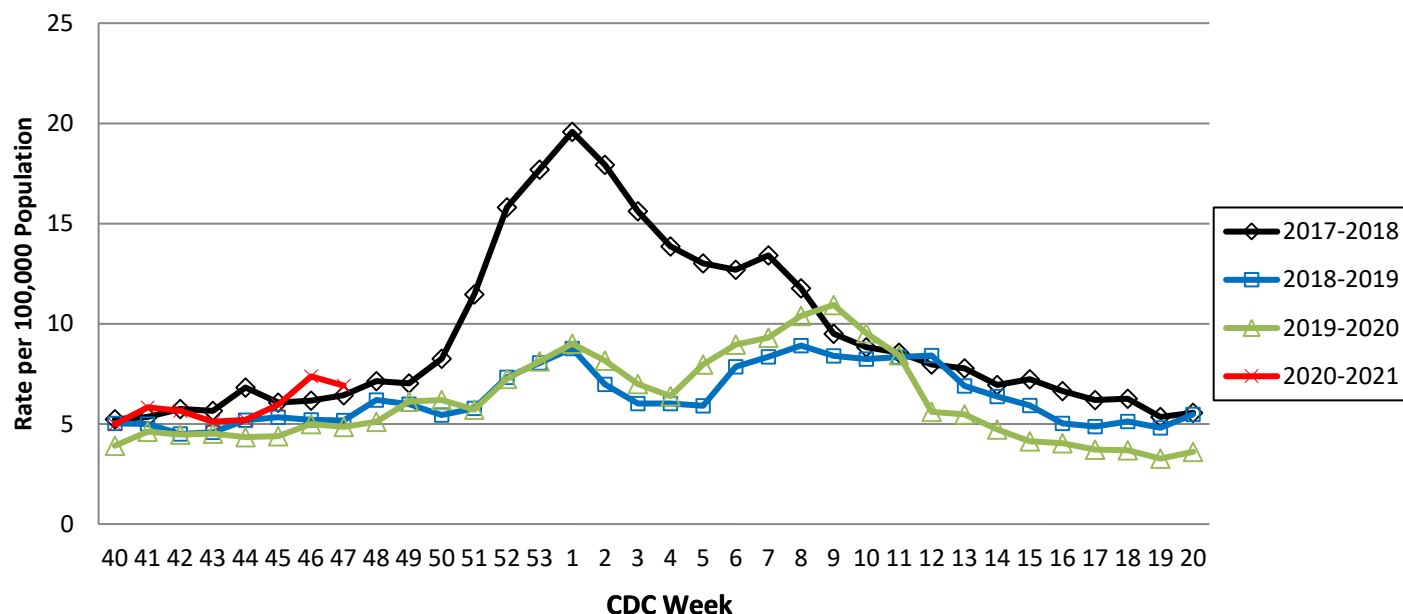
Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.
 *The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.
 *The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

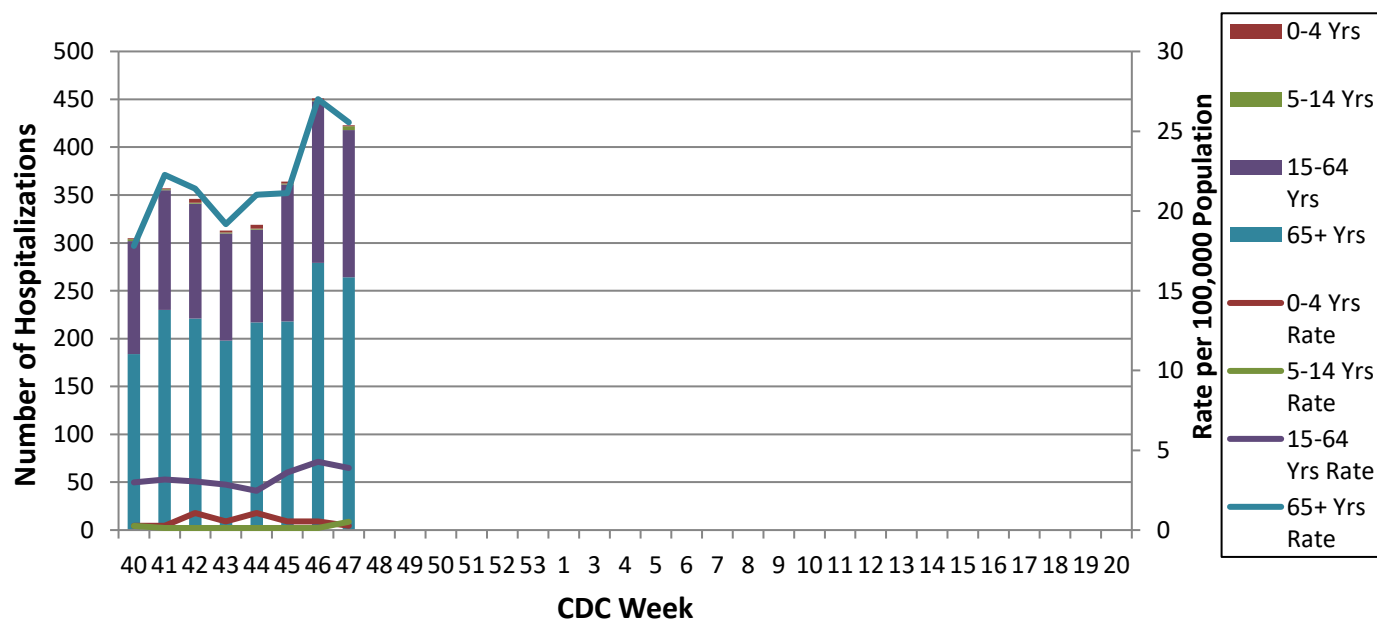
Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 47, 2020-2021 Influenza Season



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):
<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):
<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 48: November 22, 2020 – November 28, 2020

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 48 a total of 21 laboratory-positive³ influenza cases (11 influenza A and 10 influenza B) were reported. A season-to-date total of 464 laboratory-positive influenza cases (231 influenza A, 230 influenza B, and 3 untyped) have been reported in Missouri as of Week 48. The influenza type for cases reported season-to-date includes 49.8 % A, 49.6 % B and 0.6 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 48. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 48 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 1.54% (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of one influenza-associated death has been reported in Missouri as of Week 48.⁵
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 48.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 48
- Reported Week-specific Rate per 100,000 Population, CDC Week 48
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Week 48 (November 22 – November 28, 2020)^{*}

Influenza Type	Week 46	Week 47	Week 48	2020-2021* Season-to-Date
Influenza A	23	28	11	231
Influenza B	34	32	10	230
Influenza Unknown Or Untyped	0	0	0	3
Total	57	60	21	464

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*} Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 48 (November 22 – November 28, 2020)^{}**

Age Group	Week 48 Cases	Week 48 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	3	0.80	40	10.68
05-24	4	0.25	114	7.10
25-49	8	0.42	141	7.37
50-64	1	0.08	85	6.87
65+	5	0.52	84	8.80
Total	21	0.35	464	7.63

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*} Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 48 (November 22, 2020 – November 28, 2020)^{*,‡}

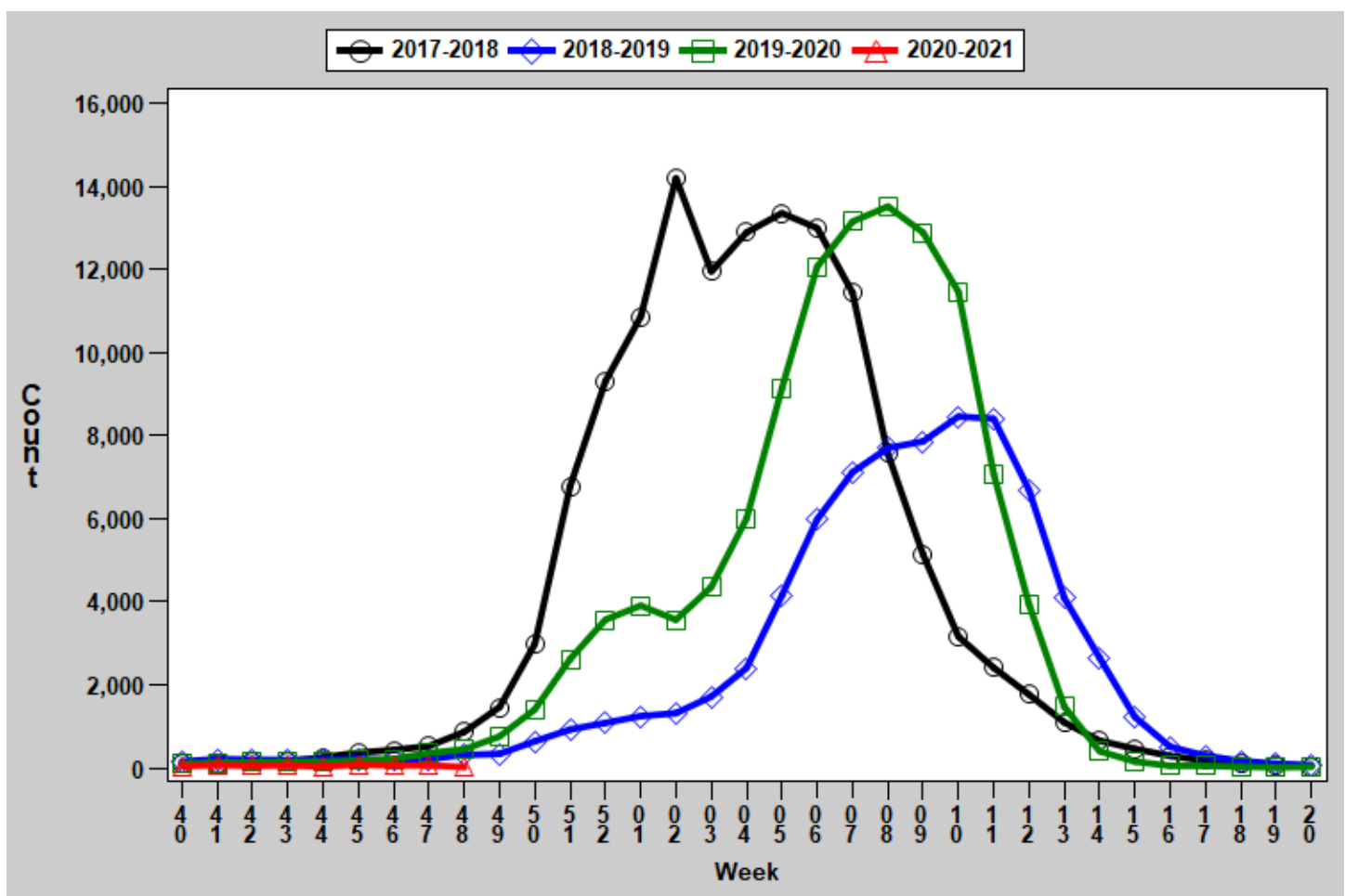
Region	Week 48 Cases	Week 48 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	4	0.59	42	6.20
Eastern	9	0.40	221	9.75
Northwest	0	0.00	54	3.38
Southeast	4	0.85	77	16.32
Southwest	4	0.37	70	6.53
Total	21	0.35	464	7.63

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*}Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

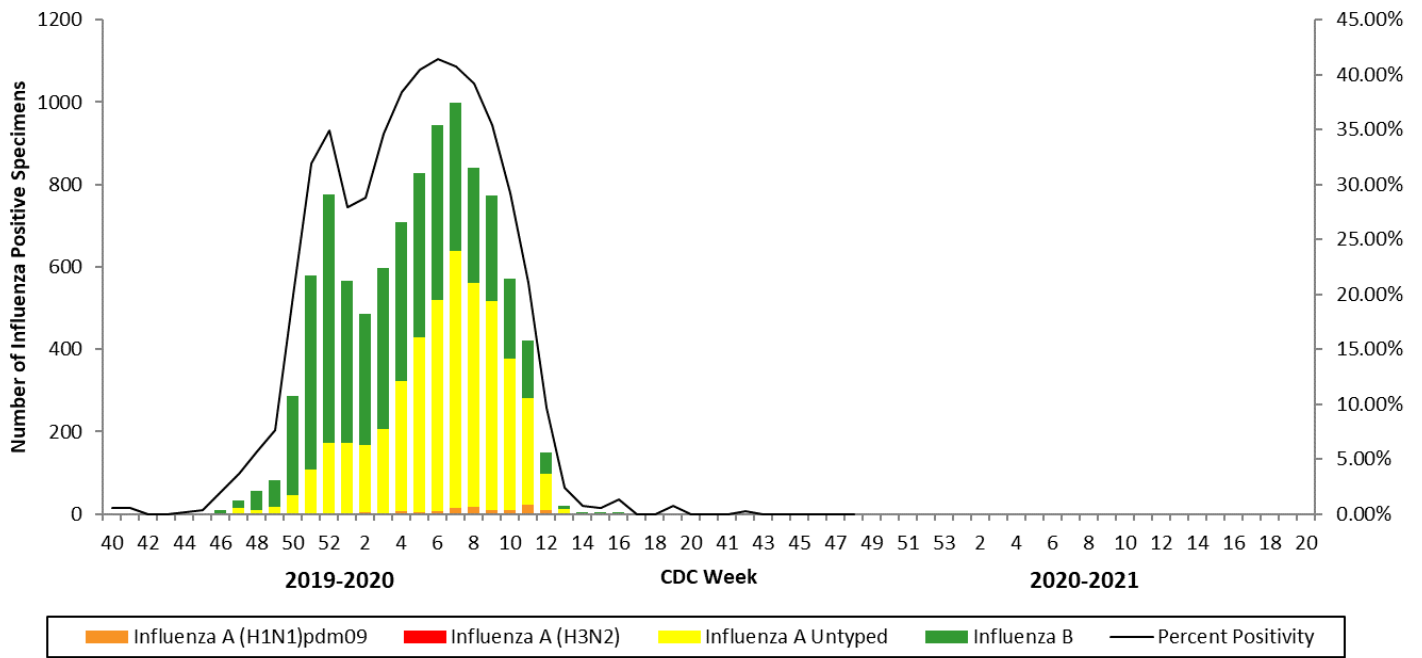
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021^{*}



[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

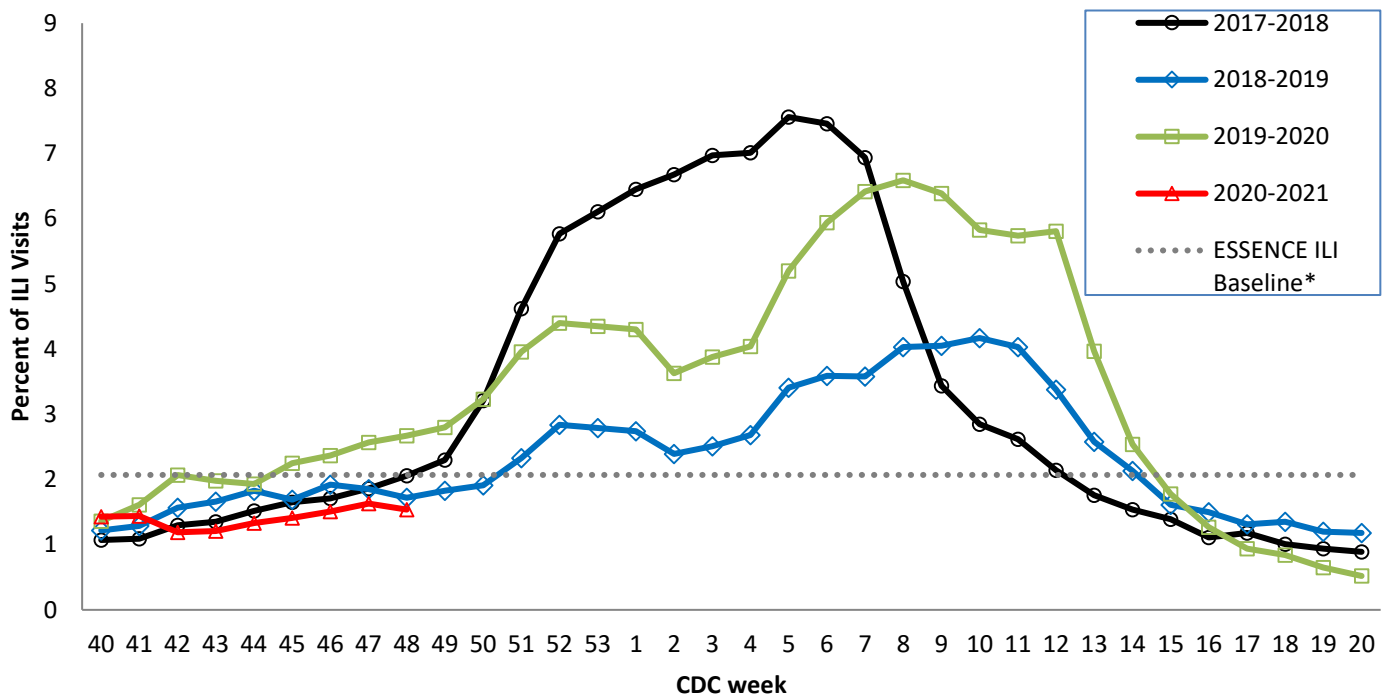
^{*}2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

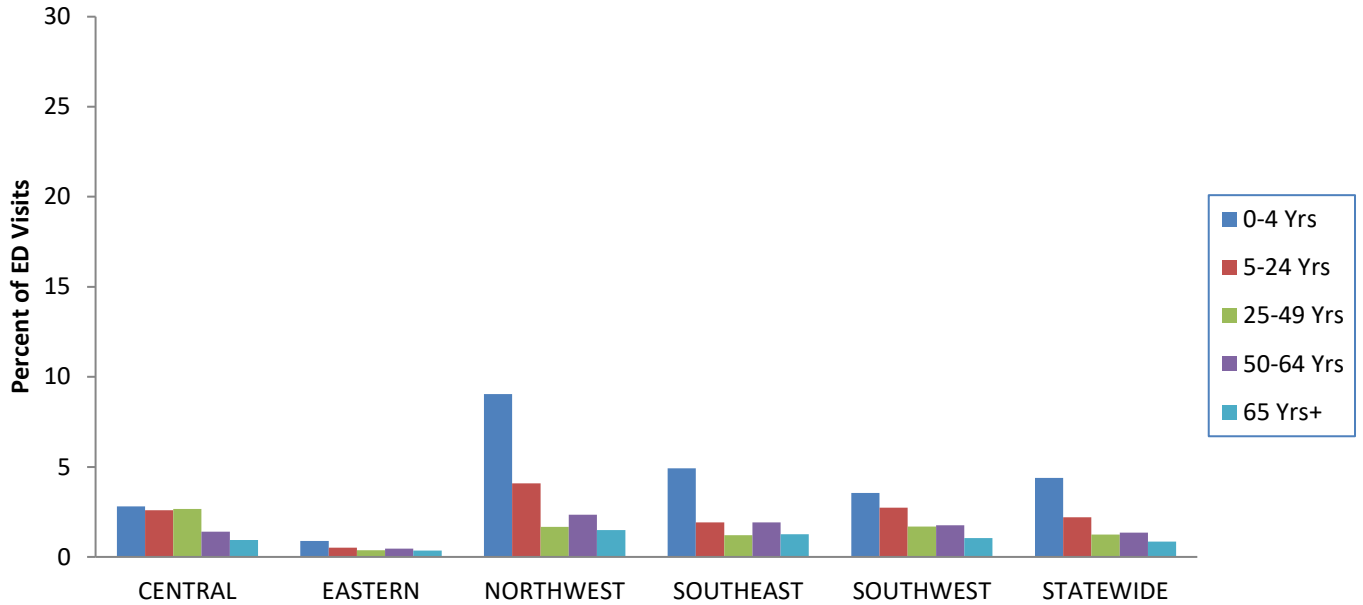


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCE ILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

**There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

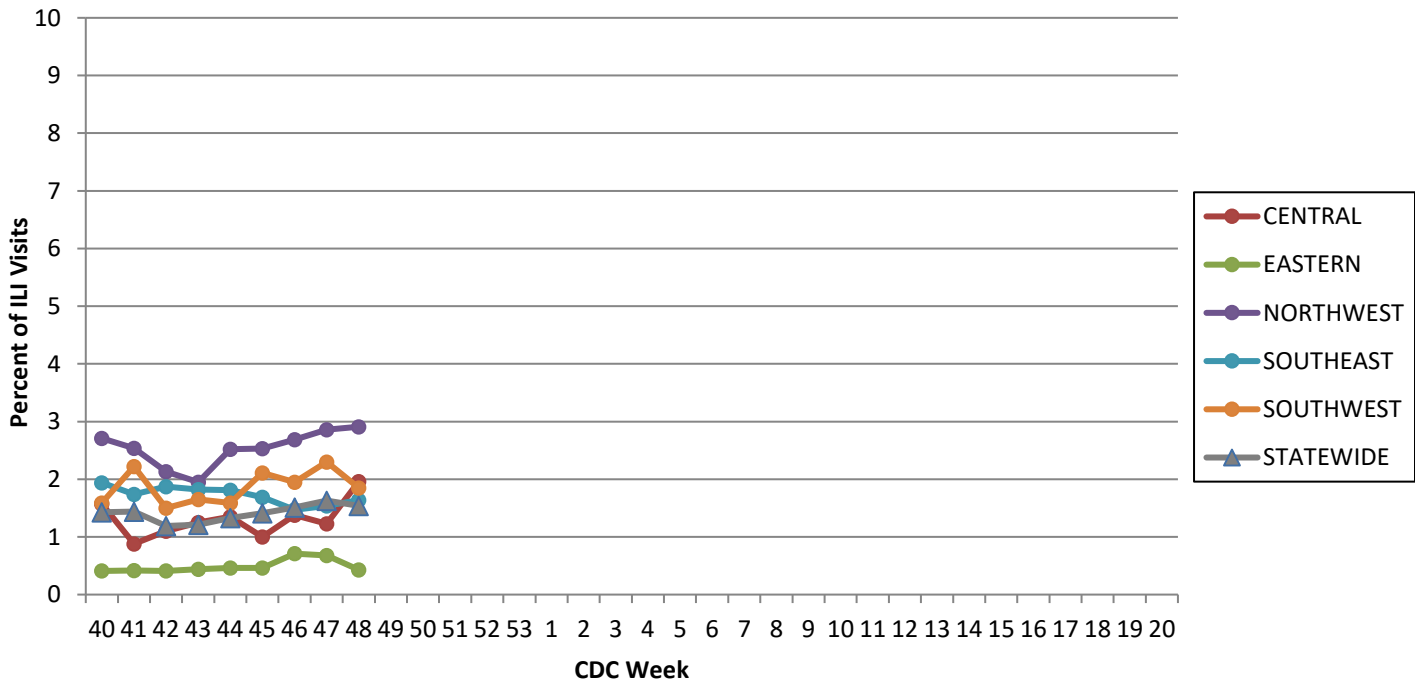
Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 48, 2020*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

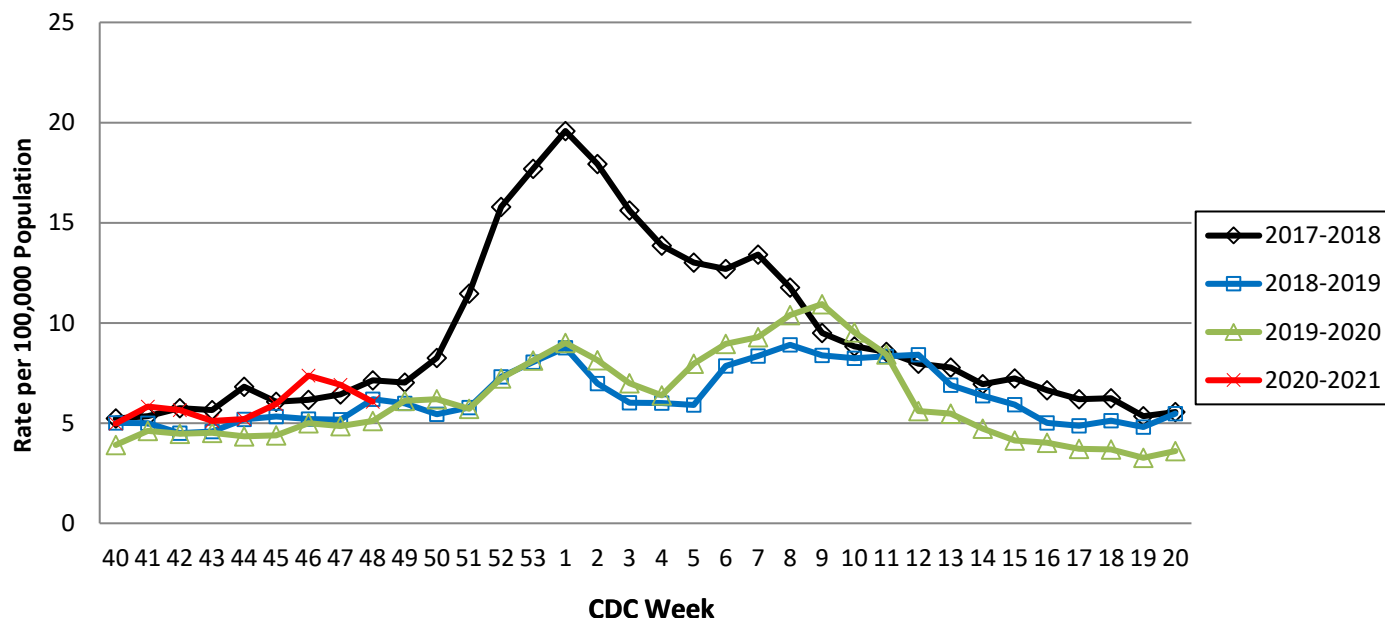
Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

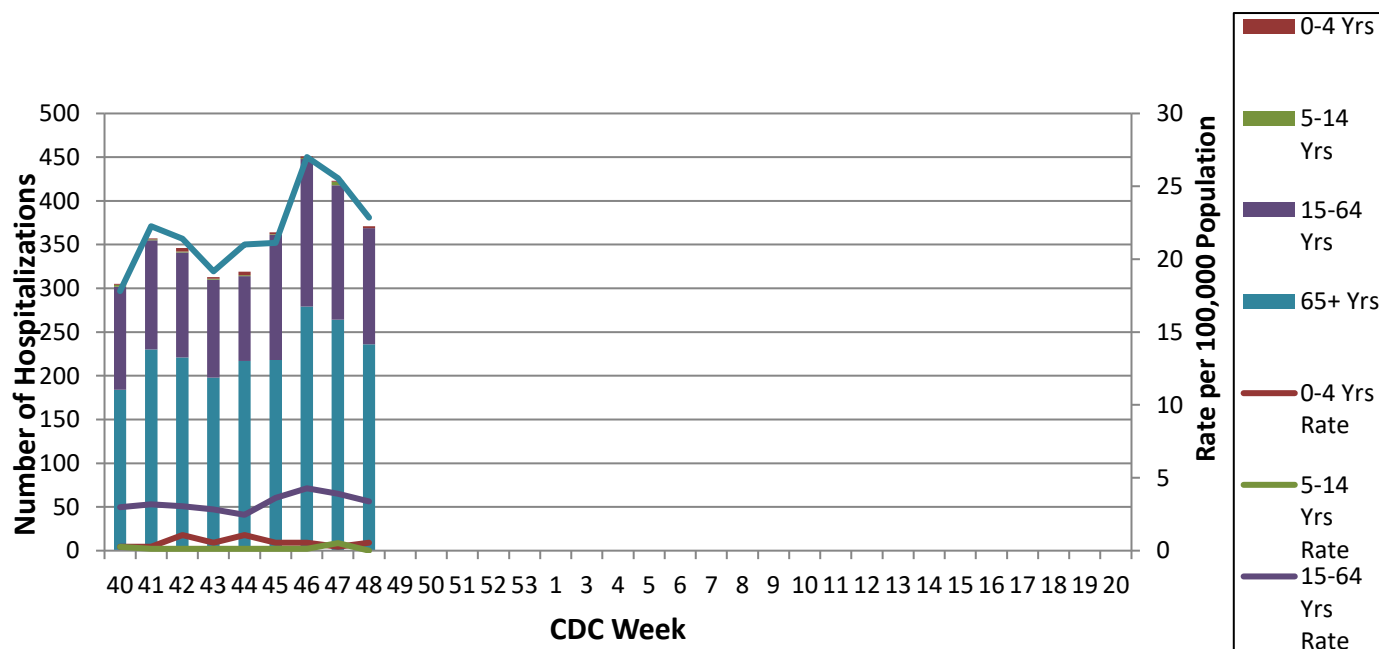
Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 48, 2020-2021 Influenza Season



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):

<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):

<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:

http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 49: November 29, 2020 – December 5, 2020

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 49 a total of 52 laboratory-positive³ influenza cases (31 influenza A and 21 influenza B) were reported. A season-to-date total of 537 laboratory-positive influenza cases (274 influenza A, 260 influenza B, and 3 untyped) have been reported in Missouri as of Week 49. The influenza type for cases reported season-to-date includes 51% A, 48.4 % B and 0.6 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 49. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 49 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 1.35% (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of one influenza-associated death has been reported in Missouri as of Week 49.⁵
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 49.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIfevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 49
- Reported Week-specific Rate per 100,000 Population, CDC Week 49
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Week 49 (November 29 – December 5, 2020)*

Influenza Type	Week 47	Week 48	Week 49	2020-2021* Season-to-Date
Influenza A	32	17	31	274
Influenza B	35	15	21	260
Influenza Unknown Or Untyped	0	0	0	3
Total	67	32	52	537

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 49 (November 29 – December 5, 2020)*

Age Group	Week 49 Cases	Week 49 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	1	0.27	44	11.75
05-24	10	0.62	130	8.10
25-49	15	0.78	161	8.41
50-64	15	1.21	106	8.57
65+	11	1.15	96	10.05
Total	52	0.85	537	8.83

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 49 (November 29, 2020 – December 5, 2020)^{}**

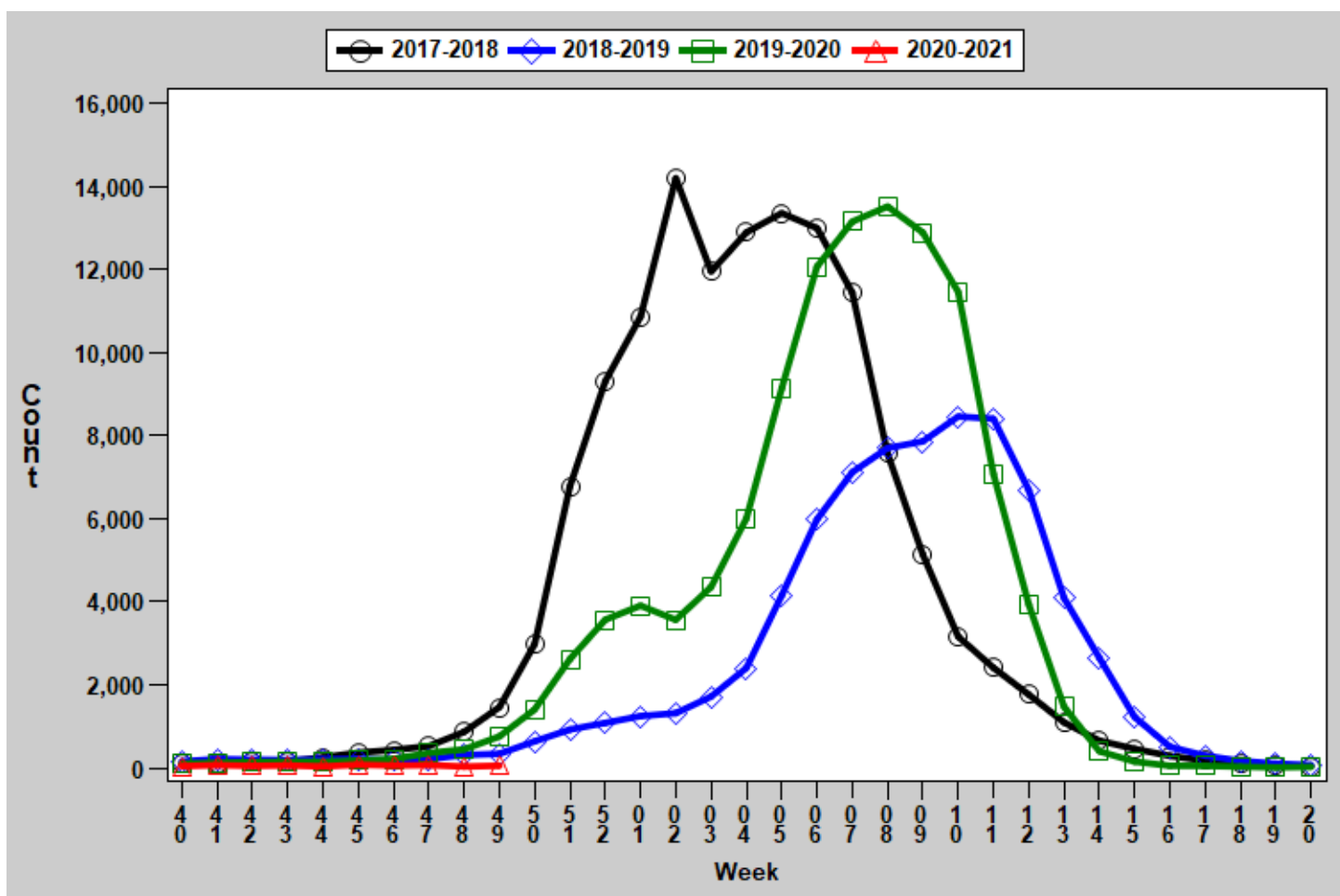
Region	Week 49 Cases	Week 49 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	16	2.36	62	9.16
Eastern	6	0.26	227	10.02
Northwest	3	0.19	59	3.69
Southeast	17	3.60	97	20.56
Southwest	10	0.93	92	8.59
Total	52	0.85	537	8.83

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*}Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

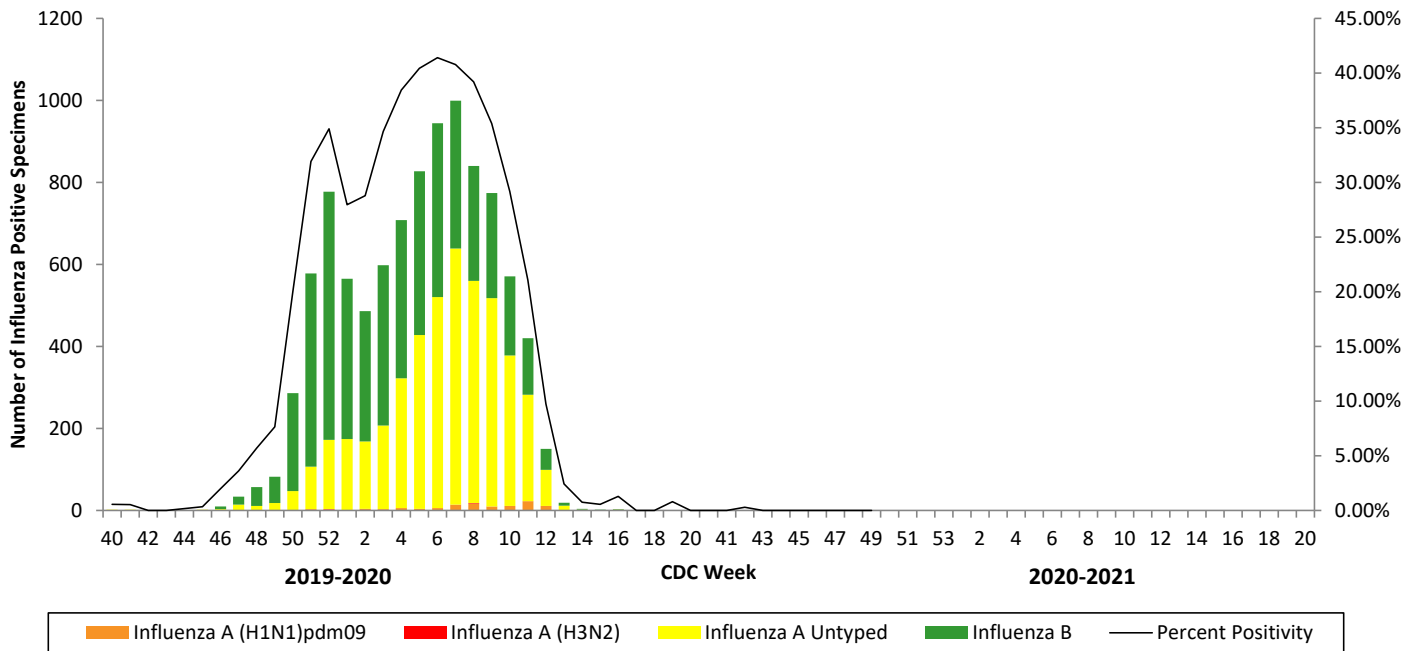
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021^{*}



[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

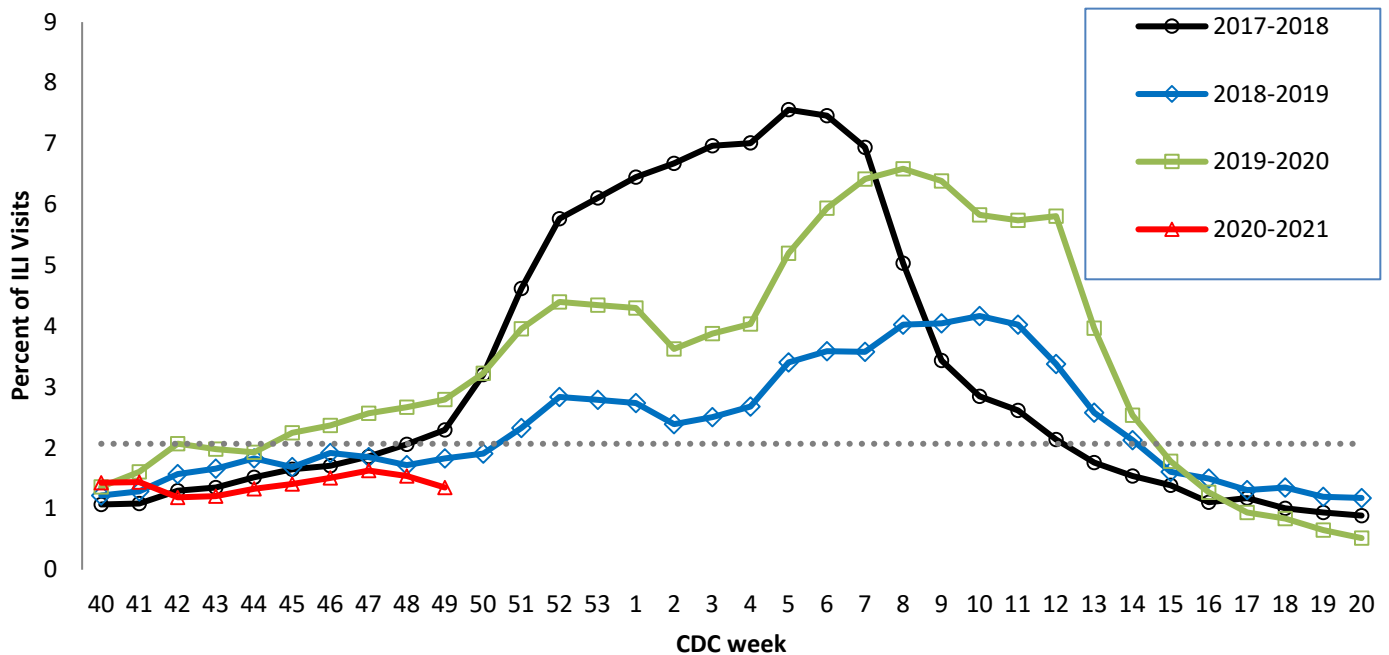
^{*}2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

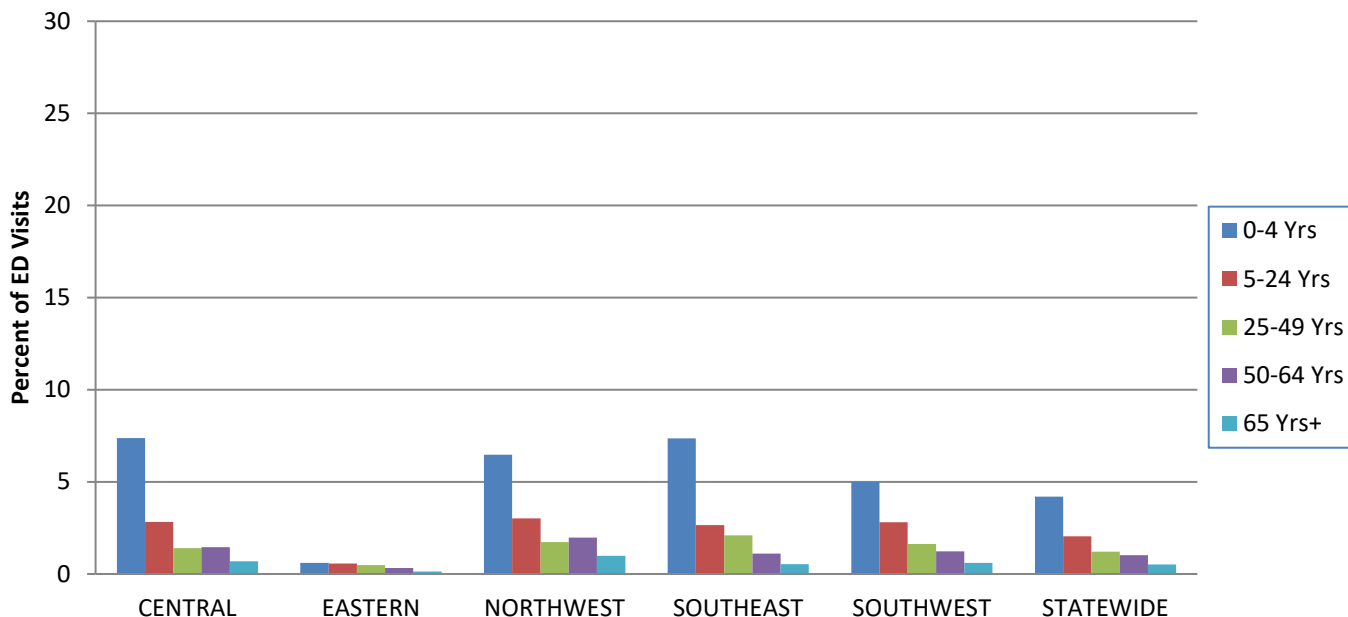


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

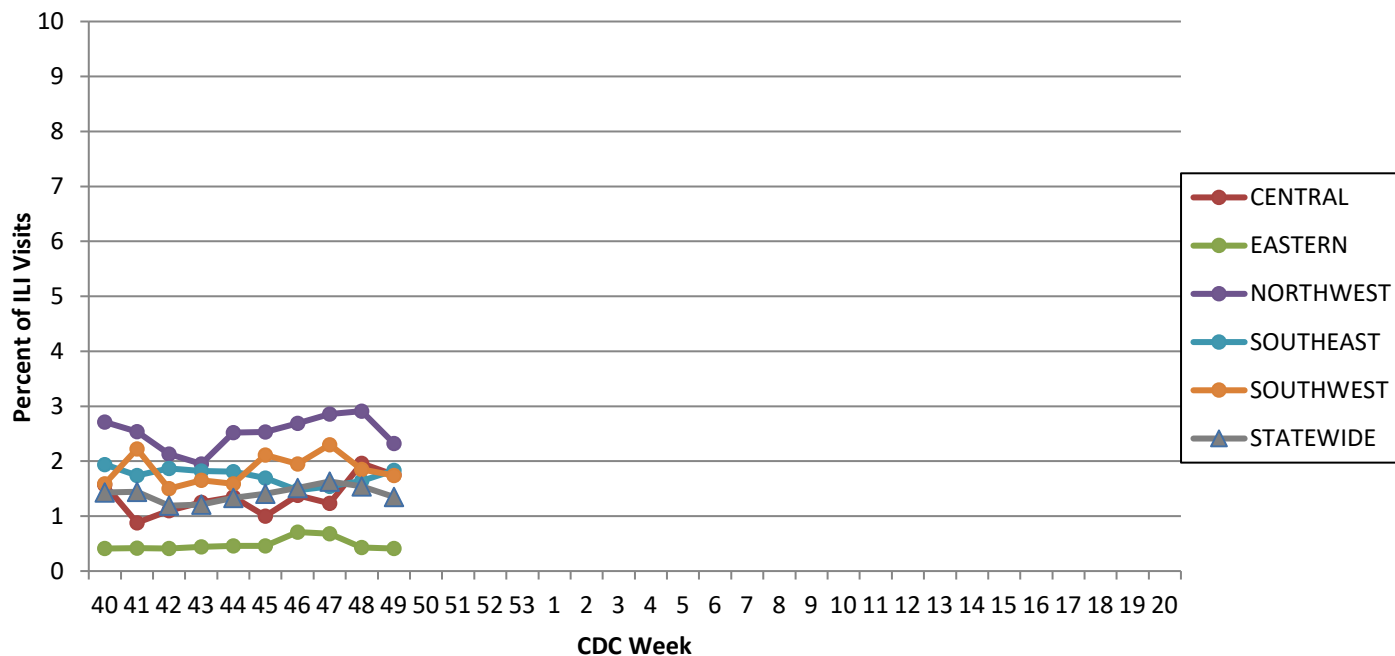
*There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 49, 2020*



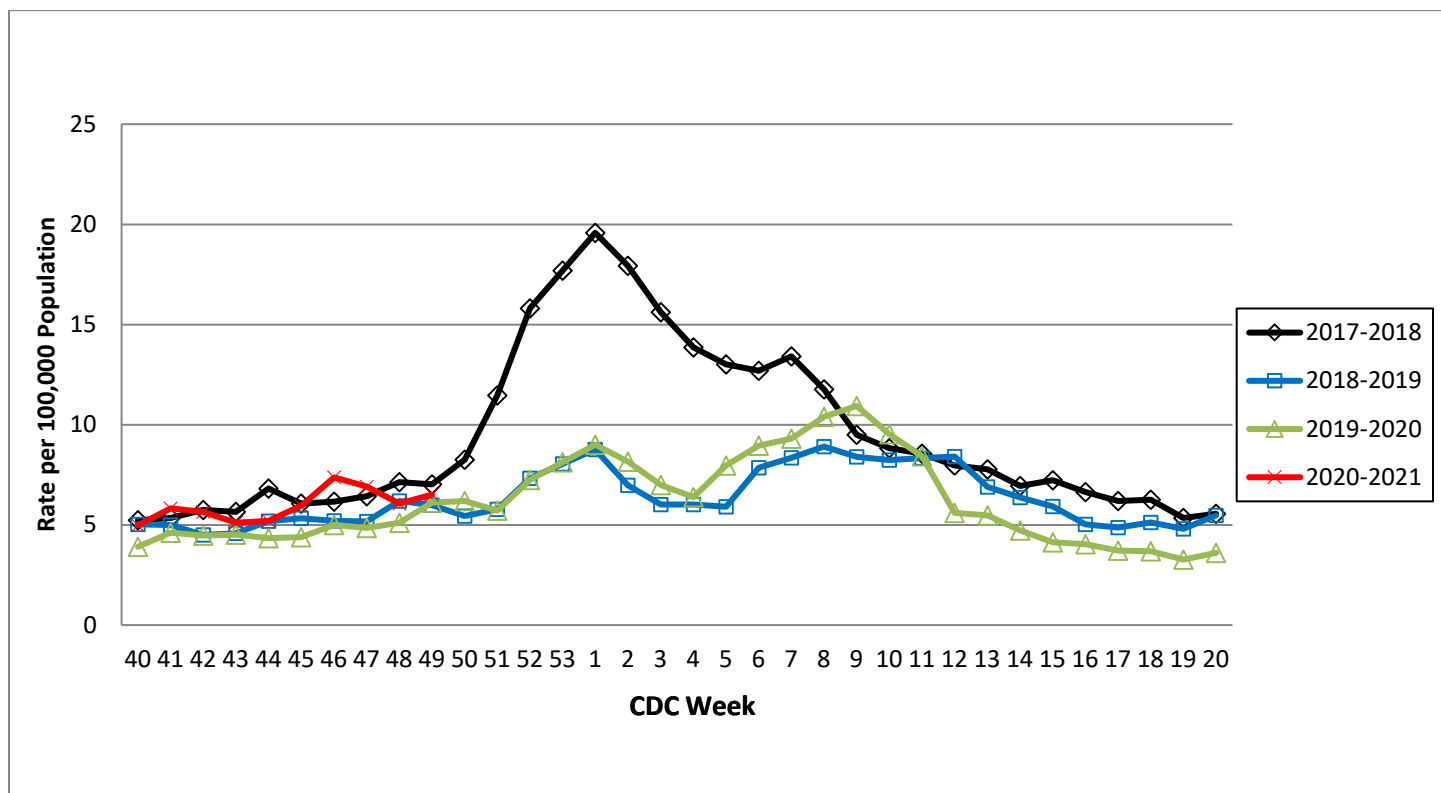
Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.
 *The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.
 *The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

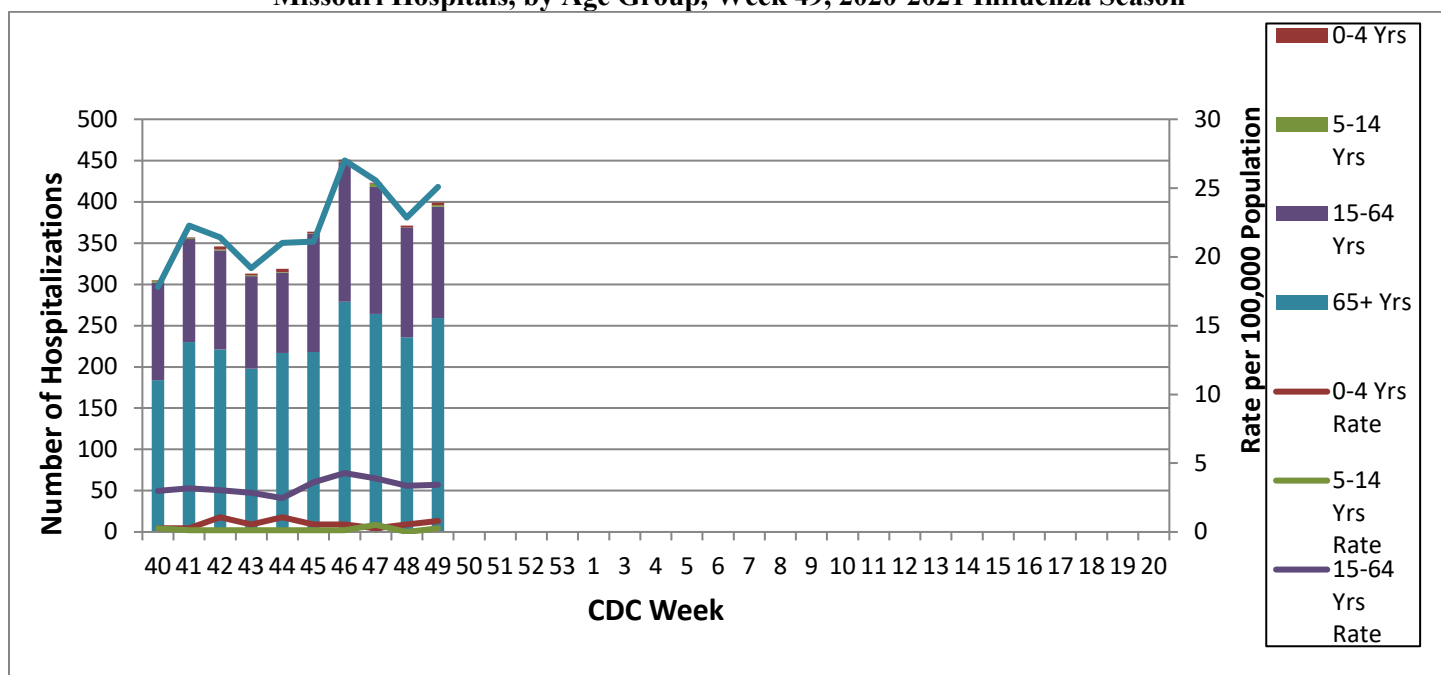
Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 49, 2020-2021 Influenza Season



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):

<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):

<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:

http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 50: December 6, 2020 – December 12, 2020

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 50 a total of 22 laboratory-positive³ influenza cases (10 influenza A and 12 influenza B) were reported. A season-to-date total of 588 laboratory-positive influenza cases (293 influenza A, 292 influenza B, and 3 untyped) have been reported in Missouri as of Week 50. The influenza type for cases reported season-to-date includes 49.8% A, 49.7 % B and 0.5 % untyped. One laboratory-positive case of influenza A (2009 H1N1) was reported by the Missouri State Public Health Laboratory (MSPHL) during Week 50. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 50 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 1.35% (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of one influenza-associated death has been reported in Missouri as of Week 50.⁵
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 50.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIfevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 50
- Reported Week-specific Rate per 100,000 Population, CDC Week 50
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 48 - 50 (December 6 – December 12, 2020)*

Influenza Type	Week 48	Week 49	Week 50	2020-2021* Season-to-Date
Influenza A	20	36	10	293
Influenza B	25	23	12	292
Influenza Unknown Or Untyped	0	0	0	3
Total	45	59	22	588

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 50 (December 6 – December 12, 2020)*

Age Group	Week 50 Cases	Week 50 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	3	0.80	51	13.62
05-24	5	0.31	139	8.66
25-49	6	0.31	171	8.94
50-64	2	0.16	117	9.46
65+	6	0.63	110	11.52
Total	22	0.36	588	9.67

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 50 (December 6, 2020 – December 12, 2020)[‡]

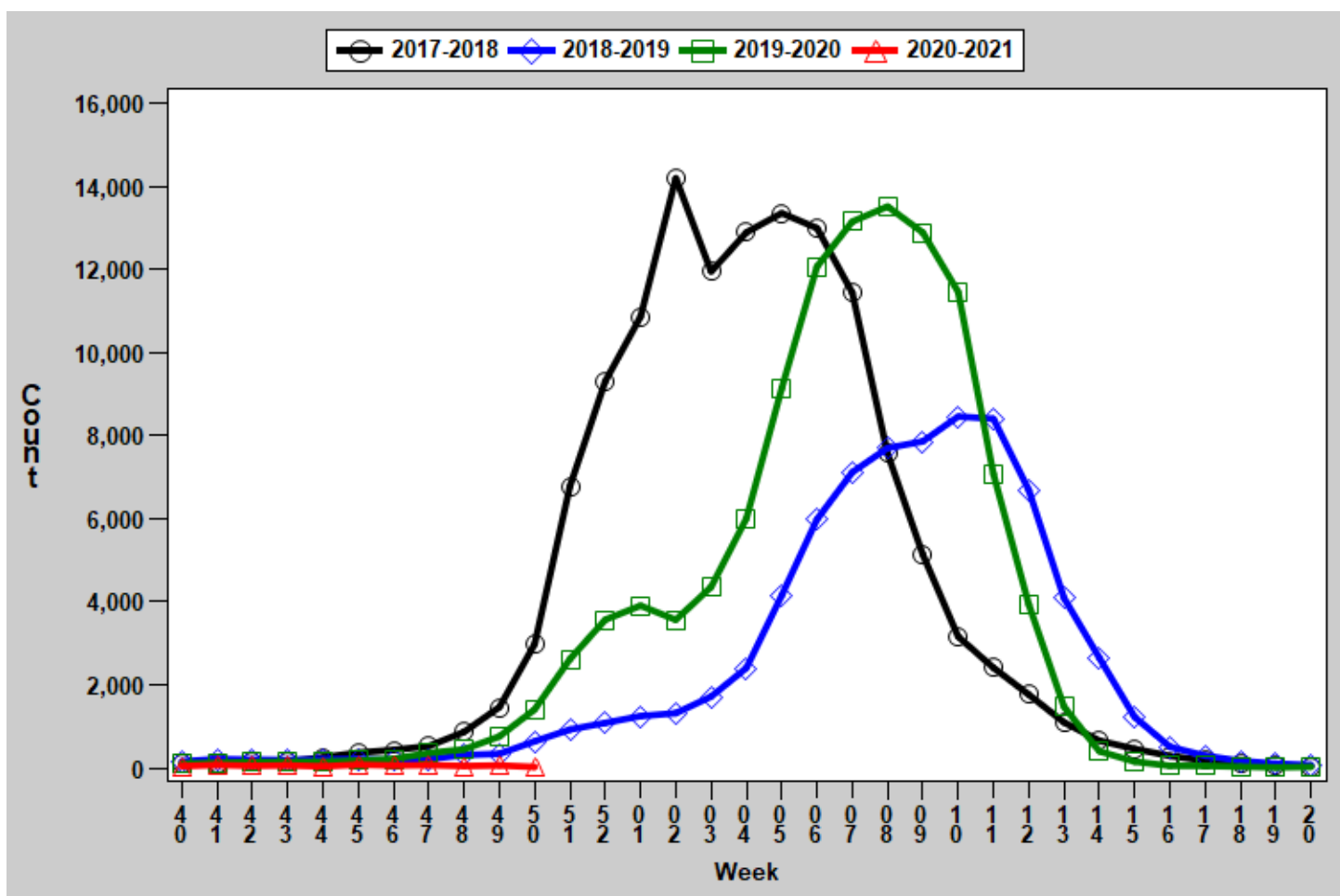
Region	Week 50 Cases	Week 50 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	4	0.59	68	10.04
Eastern	4	0.18	238	10.50
Northwest	5	0.31	83	5.20
Southeast	1	0.21	99	20.99
Southwest	8	0.75	100	9.33
Total	22	0.36	588	9.67

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

* Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

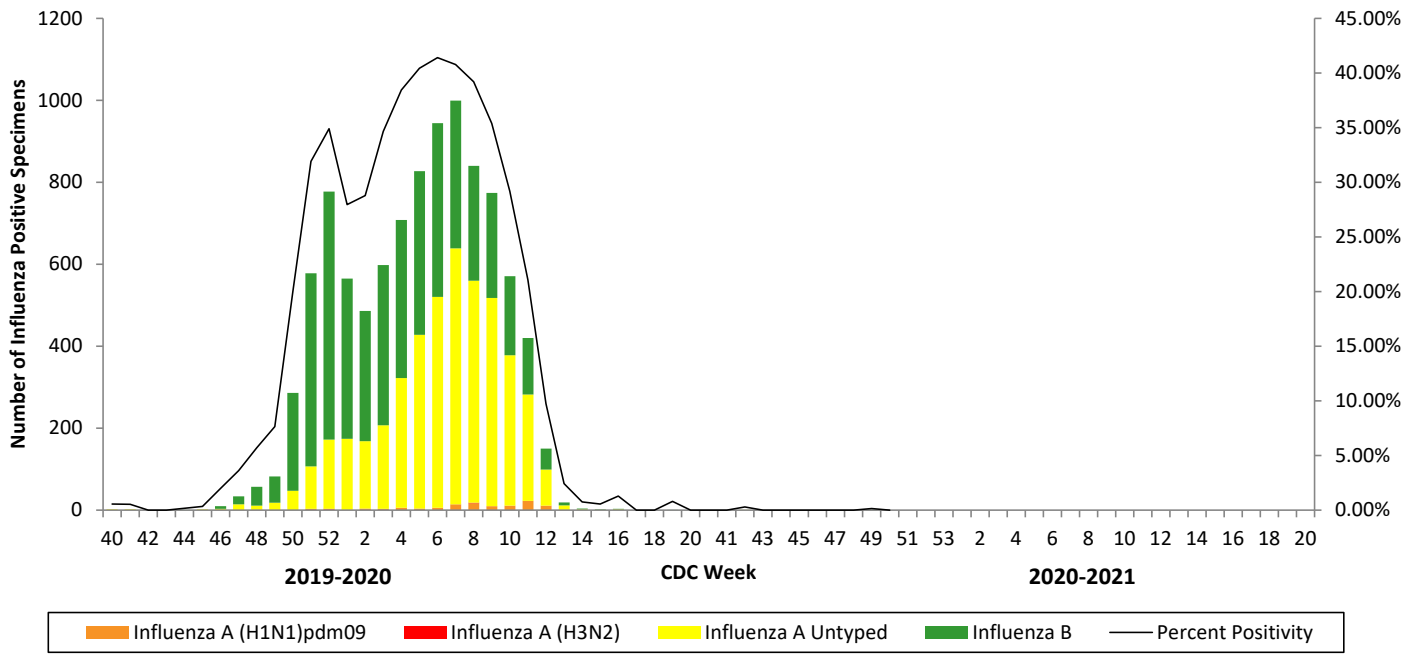
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021^{*}



[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

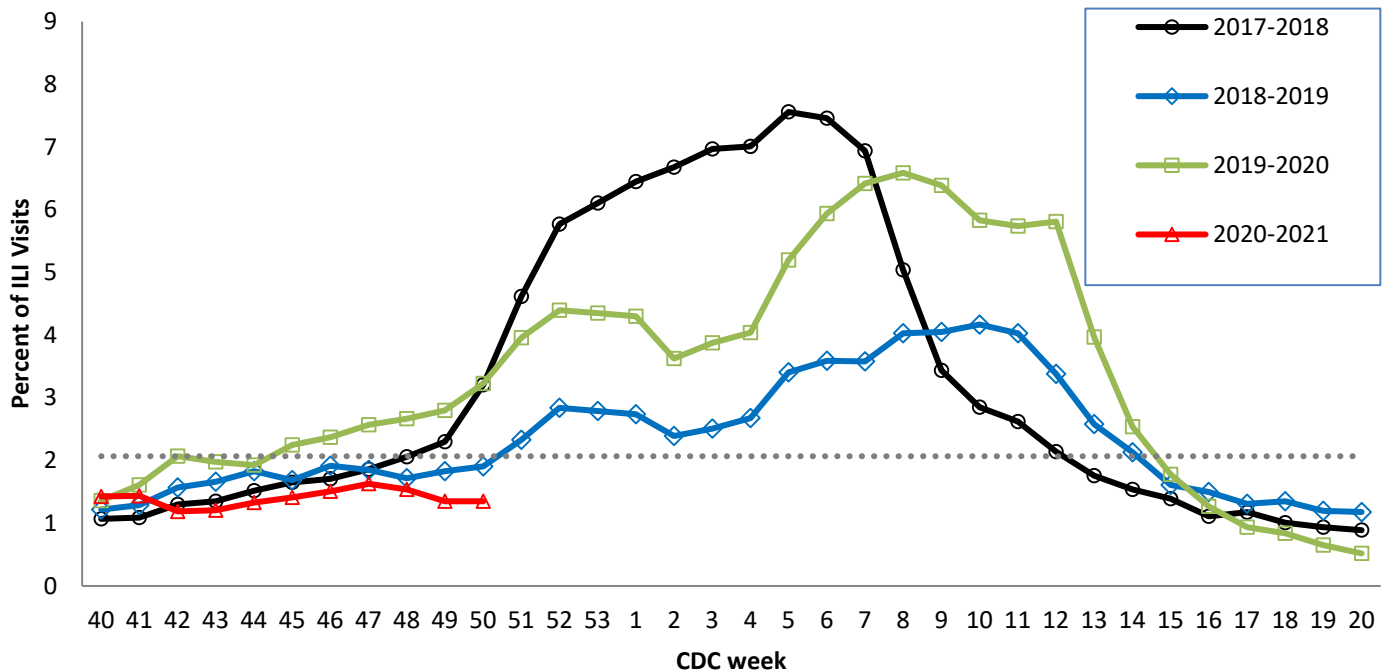
* 2020-2021 season-to-date through the week ending May 22, 2021 (Week 20). Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

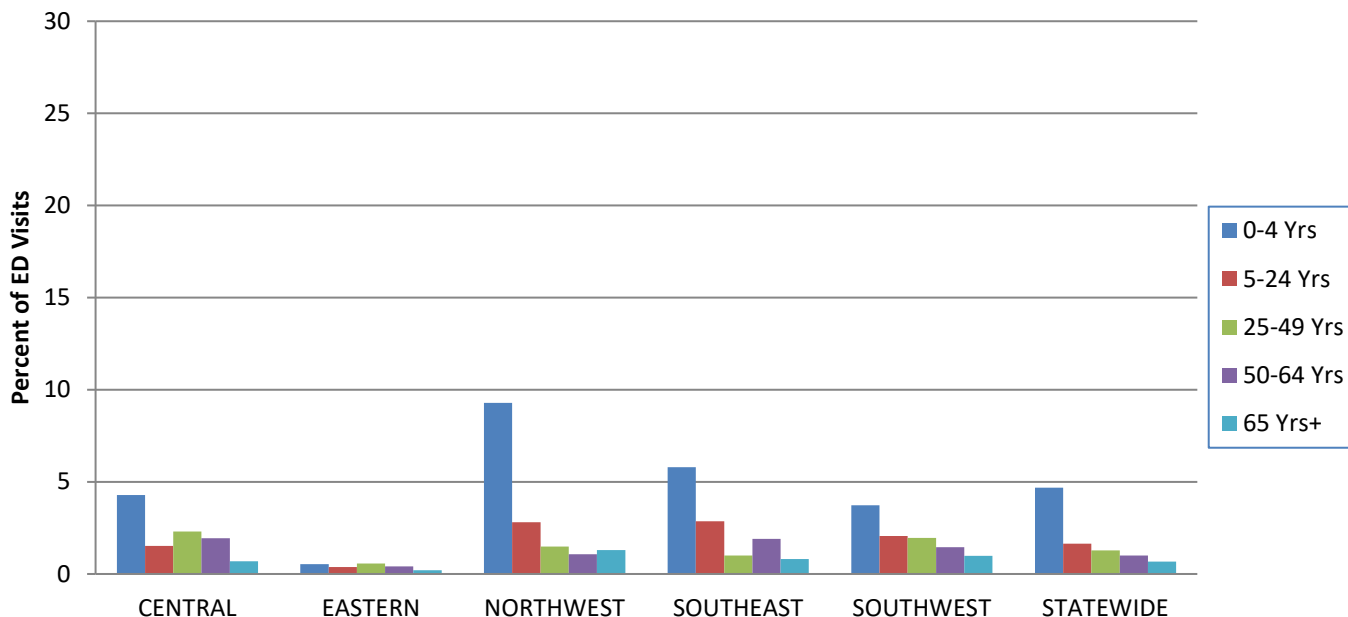


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

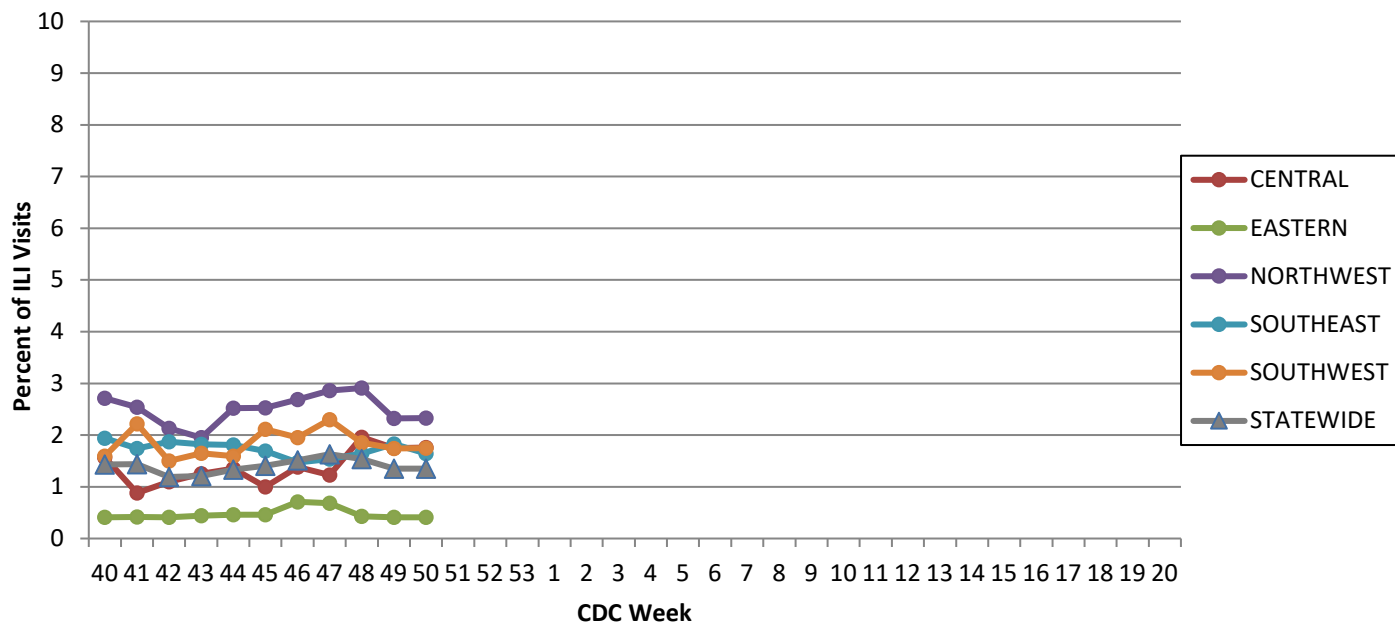
*There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 50, 2020*



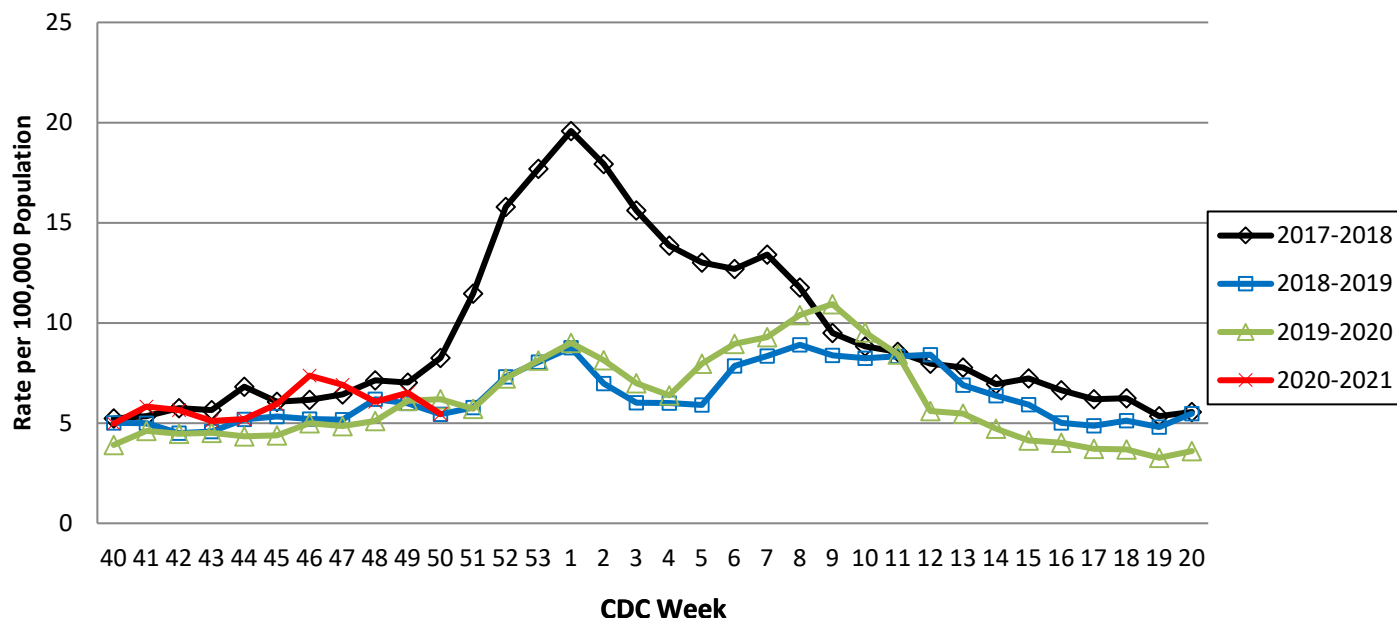
Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.
 *The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.
 *The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

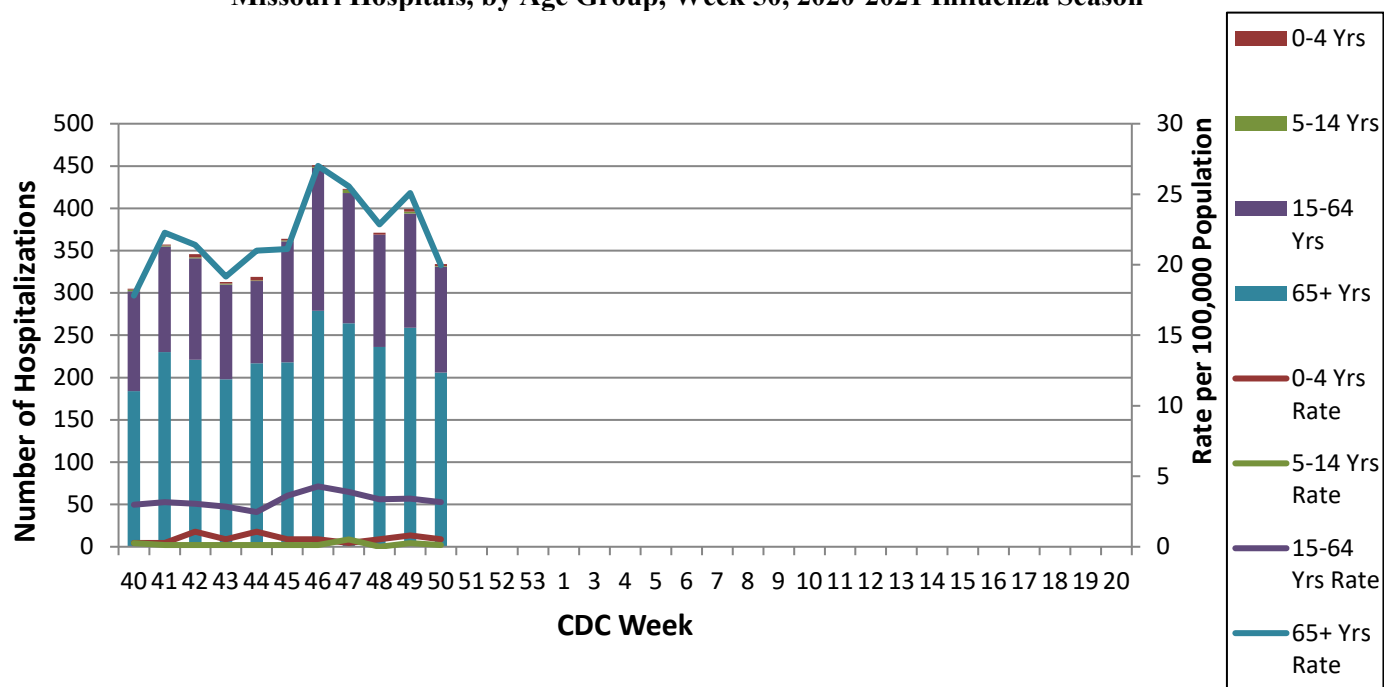
Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 50, 2020-2021 Influenza Season



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):

<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):

<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:

http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 51: December 13, 2020 – December 19, 2020

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 51 a total of 31 laboratory-positive³ influenza cases (11 influenza A and 19 influenza B and 1 untyped) were reported. A season-to-date total of 634 laboratory-positive influenza cases (314 influenza A, 317 influenza B, and 3 untyped) have been reported in Missouri as of Week 51. The influenza type for cases reported season-to-date includes 49.5% A, 50 % B and 0.5 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 51. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 51 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 1.28% (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of one influenza-associated death has been reported in Missouri as of Week 51.⁵
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 51.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 51
- Reported Week-specific Rate per 100,000 Population, CDC Week 51
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 49 - 51 (December 13 – December 19, 2020)^{*}

Influenza Type	Week 49	Week 50	Week 51	2020-2021* Season-to-Date
Influenza A	40	15	11	314
Influenza B	24	16	19	317
Influenza Unknown Or Untyped	0	0	1	3
Total	64	31	31	634

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*} Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 51 (December 13 – December 19, 2020)^{‡*}

Age Group	Week 51 Cases	Week 51 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	2	0.53	53	14.16
05-24	6	0.37	148	9.22
25-49	10	0.52	189	9.88
50-64	5	0.40	123	9.95
65+	8	0.84	121	12.67
Total	31	0.51	634	10.42

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*} Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 51 (December 13, 2020 – December 19, 2020)^{*,‡}

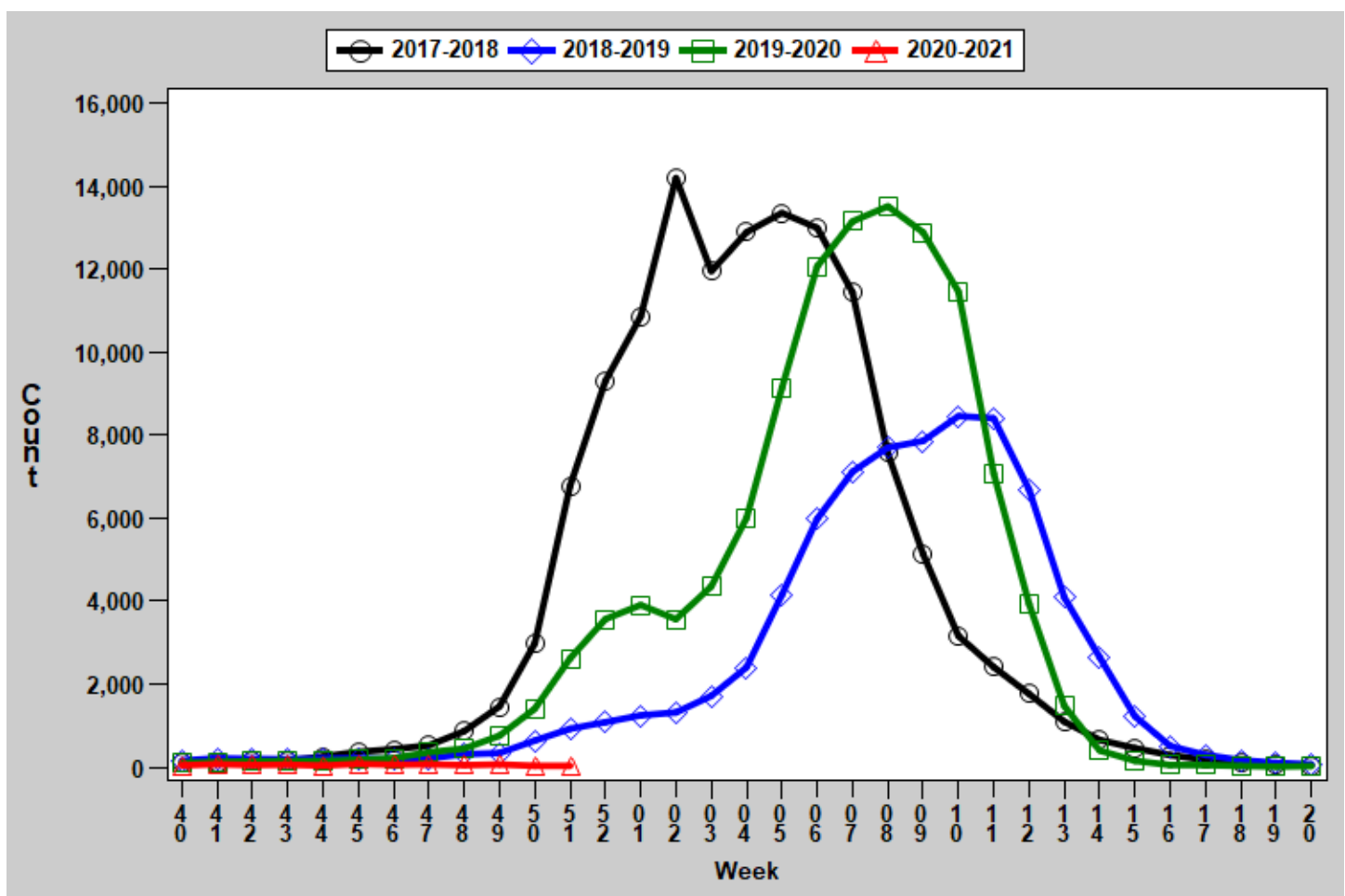
Region	Week 51 Cases	Week 51 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	5	0.74	79	11.67
Eastern	10	0.44	249	10.99
Northwest	6	0.38	89	5.57
Southeast	4	0.85	104	20.05
Southwest	6	0.56	113	10.55
Total	31	0.51	634	10.42

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*}Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

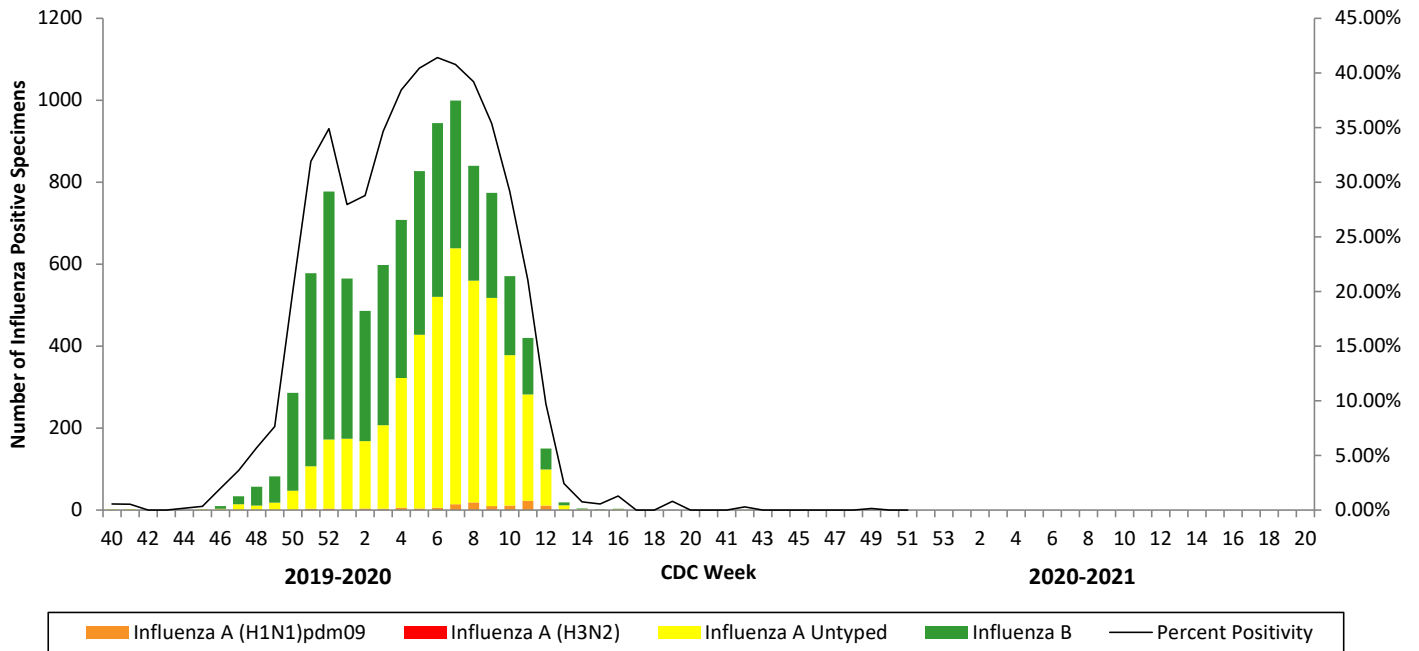
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021^{*}



[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

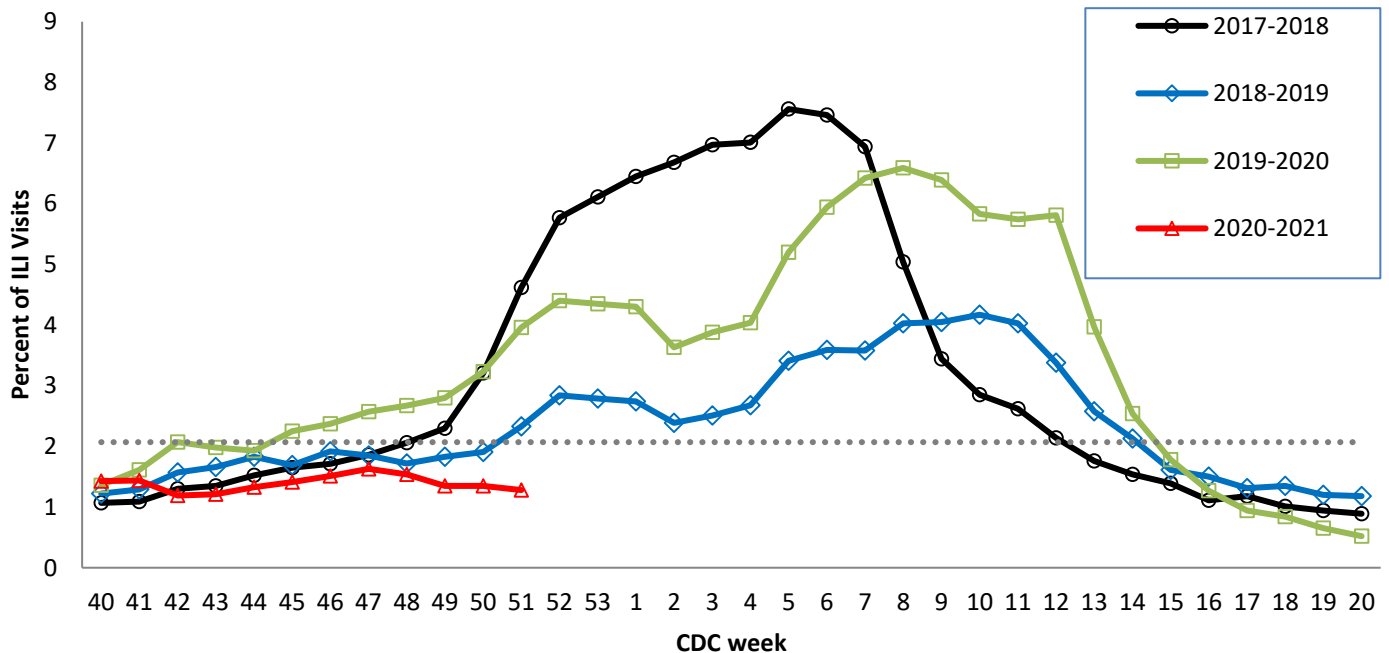
^{*}2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

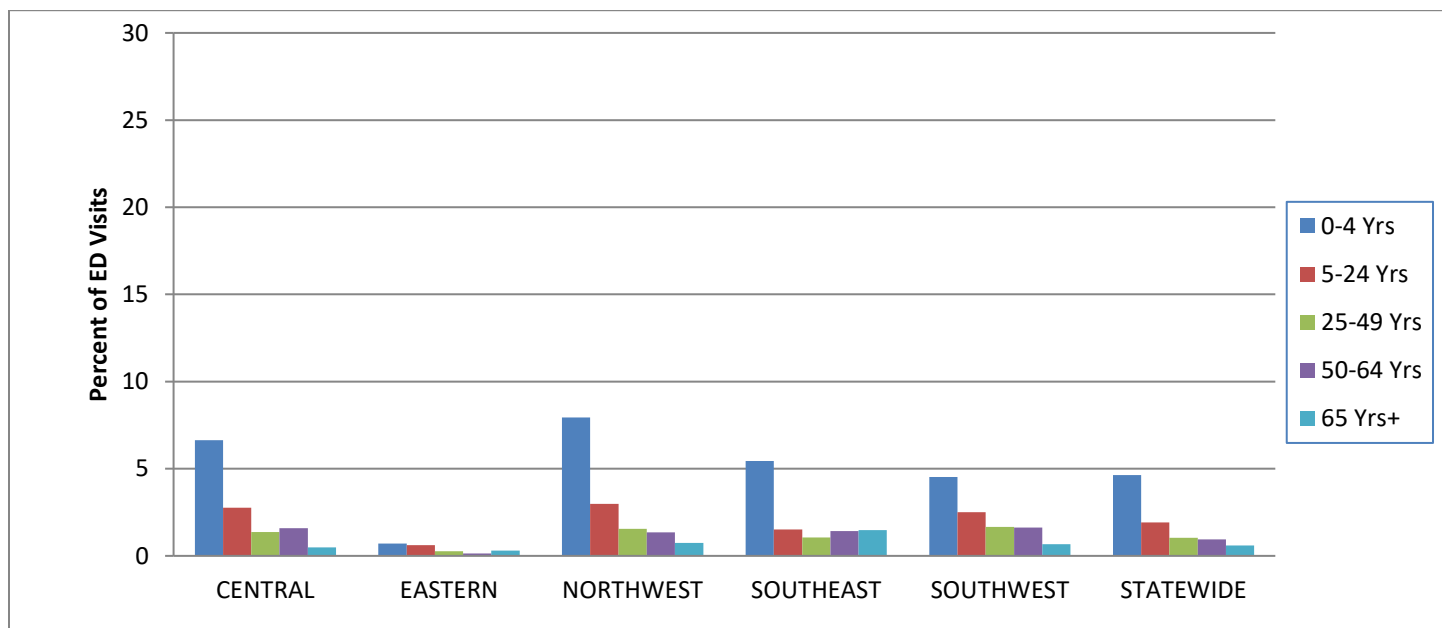


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

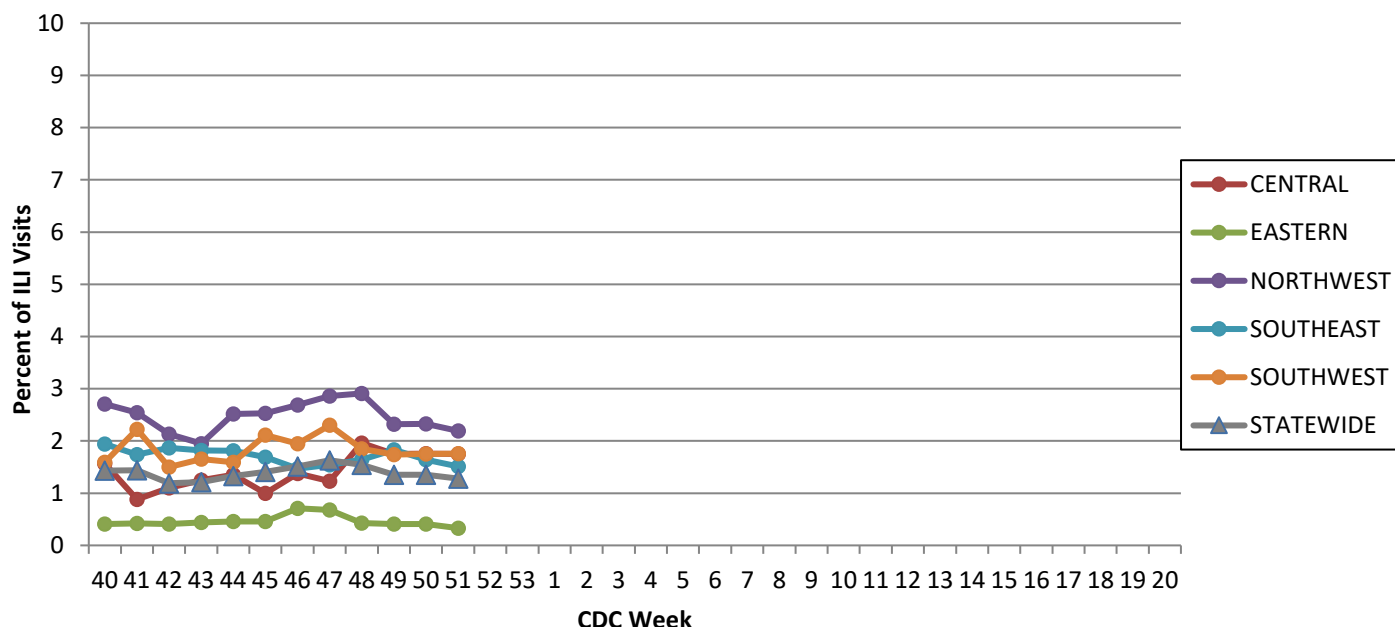
*There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 51, 2020*



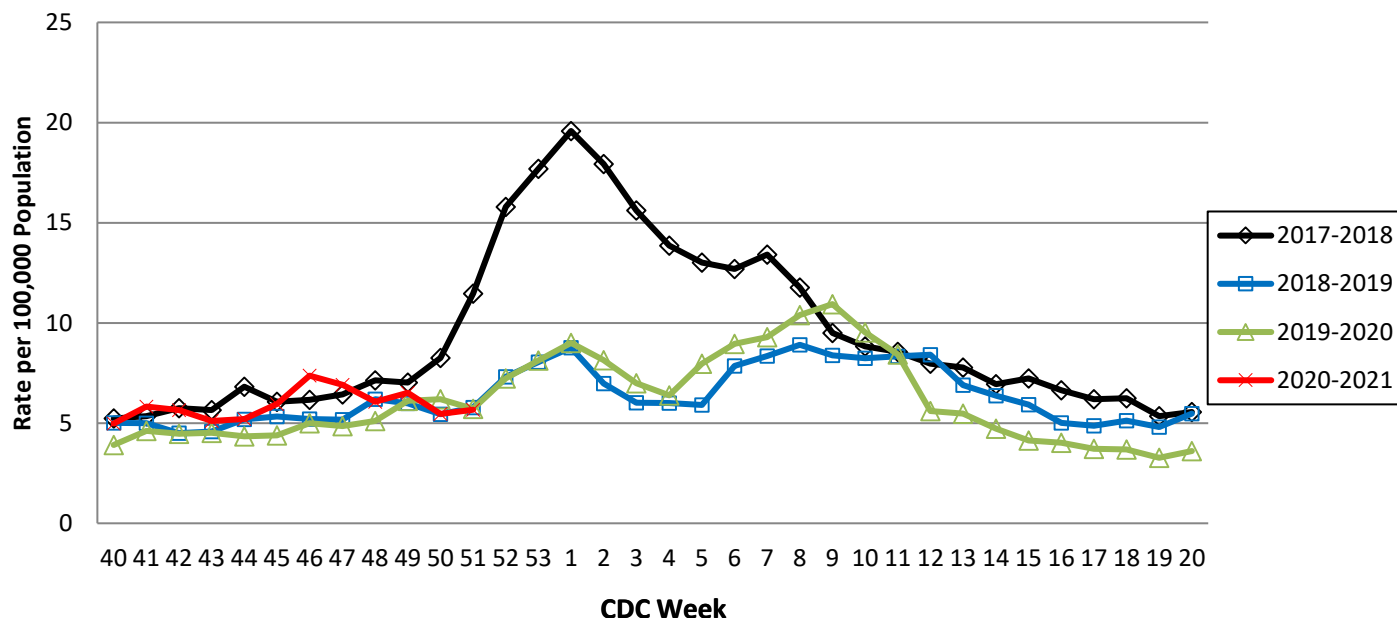
Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.
 *The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.
 *The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

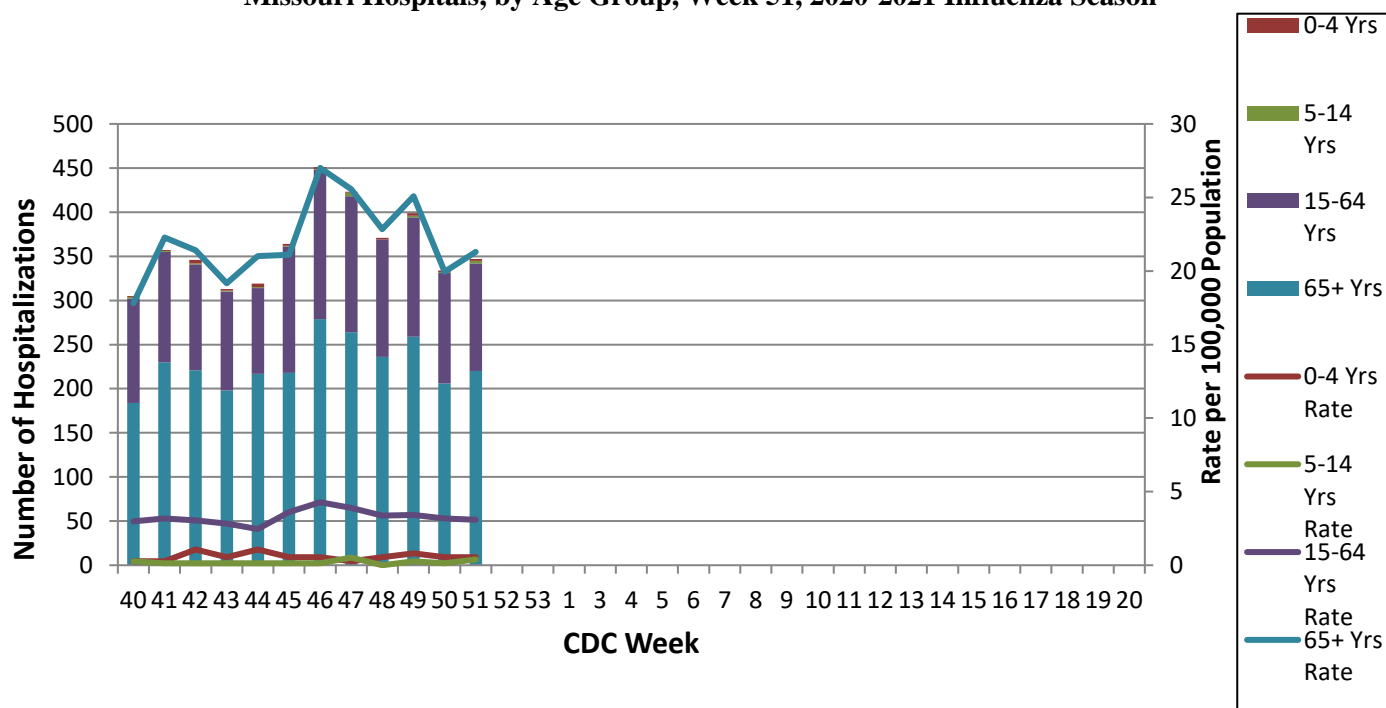
Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 51, 2020-2021 Influenza Season



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):
<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):
<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 52: December 20, 2020 – December 26, 2020

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 52 a total of 31 laboratory-positive³ influenza cases (13 influenza A and 18 influenza B) were reported. A season-to-date total of 681 laboratory-positive influenza cases (331 influenza A, 347 influenza B, and 3 untyped) have been reported in Missouri as of Week 52. The influenza type for cases reported season-to-date includes 48.6% A, 51 % B and 0.4 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 52. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 52 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 1.34% (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of one influenza-associated death has been reported in Missouri as of Week 52.⁵
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 52.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 52
- Reported Week-specific Rate per 100,000 Population, CDC Week 52
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 50 - 52 (December 20 – December 26, 2020)^{*}

Influenza Type	Week 50	Week 51	Week 52	2020-2021* Season-to-Date
Influenza A	16	14	13	331
Influenza B	16	30	18	347
Influenza Unknown Or Untyped	0	1	0	3
Total	32	45	31	681

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*} Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 52 (December 20 – December 26, 2020)^{‡*}

Age Group	Week 52 Cases	Week 52 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	5	1.34	61	16.29
05-24	7	0.44	156	9.72
25-49	8	0.42	198	10.35
50-64	5	0.40	131	10.60
65+	6	0.63	135	14.14
Total	31	0.51	681	11.19

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*} Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 52 (December 20, 2020 – December 26, 2020)^{*,‡}

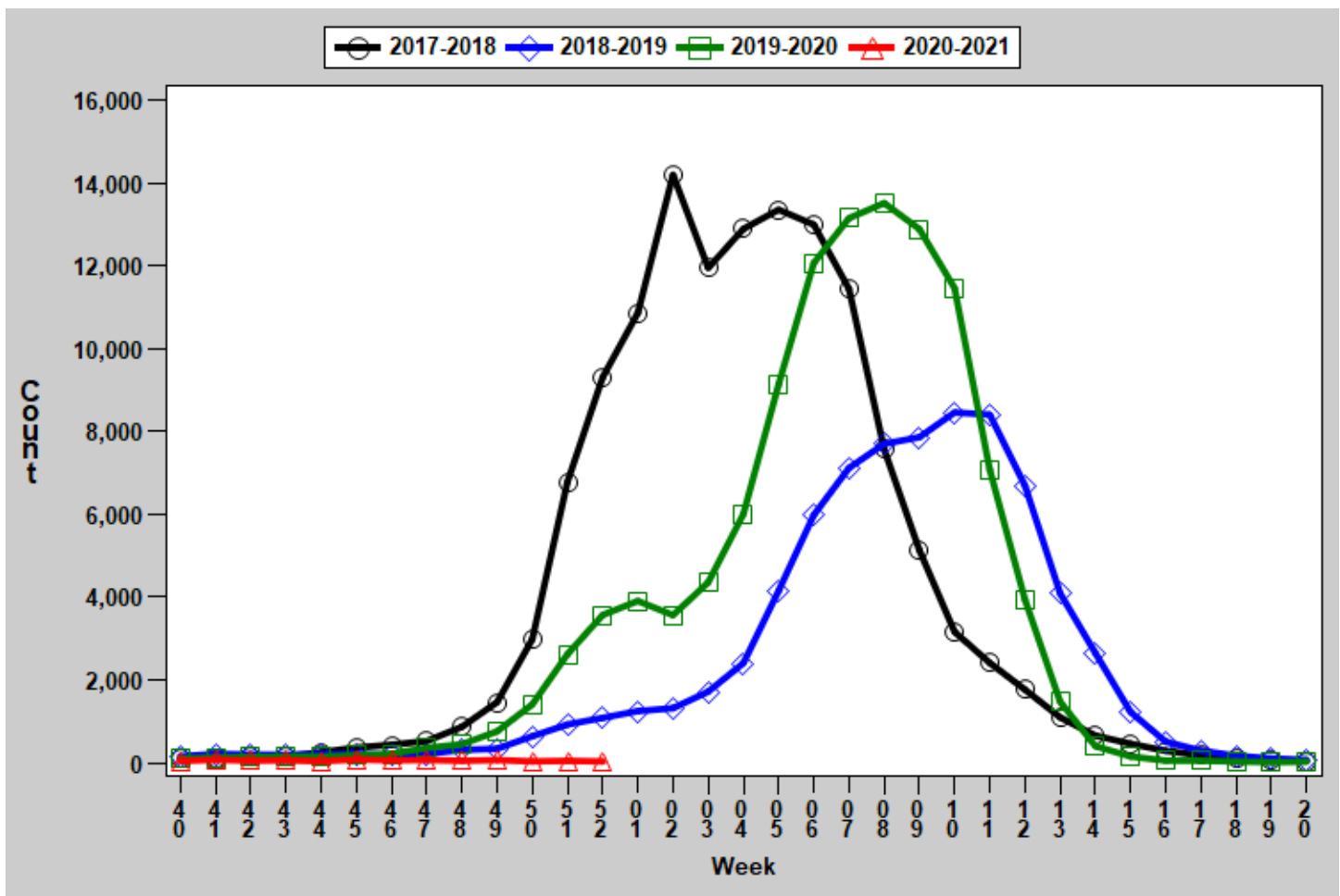
Region	Week 52 Cases	Week 52 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	0	0.00	82	12.11
Eastern	11	0.49	261	11.52
Northwest	2	0.13	94	5.88
Southeast	10	2.12	119	25.23
Southwest	8	0.75	125	11.67
Total	31	0.51	681	11.19

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*}Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

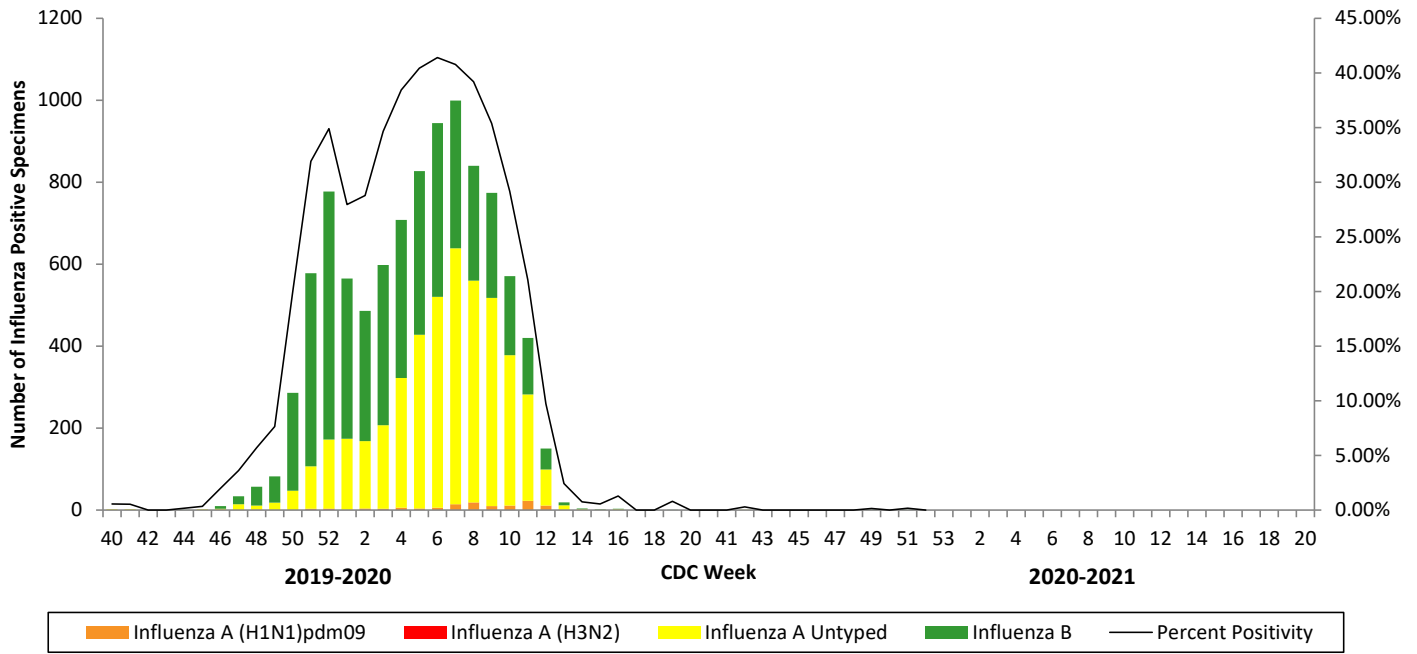
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021^{*}



[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

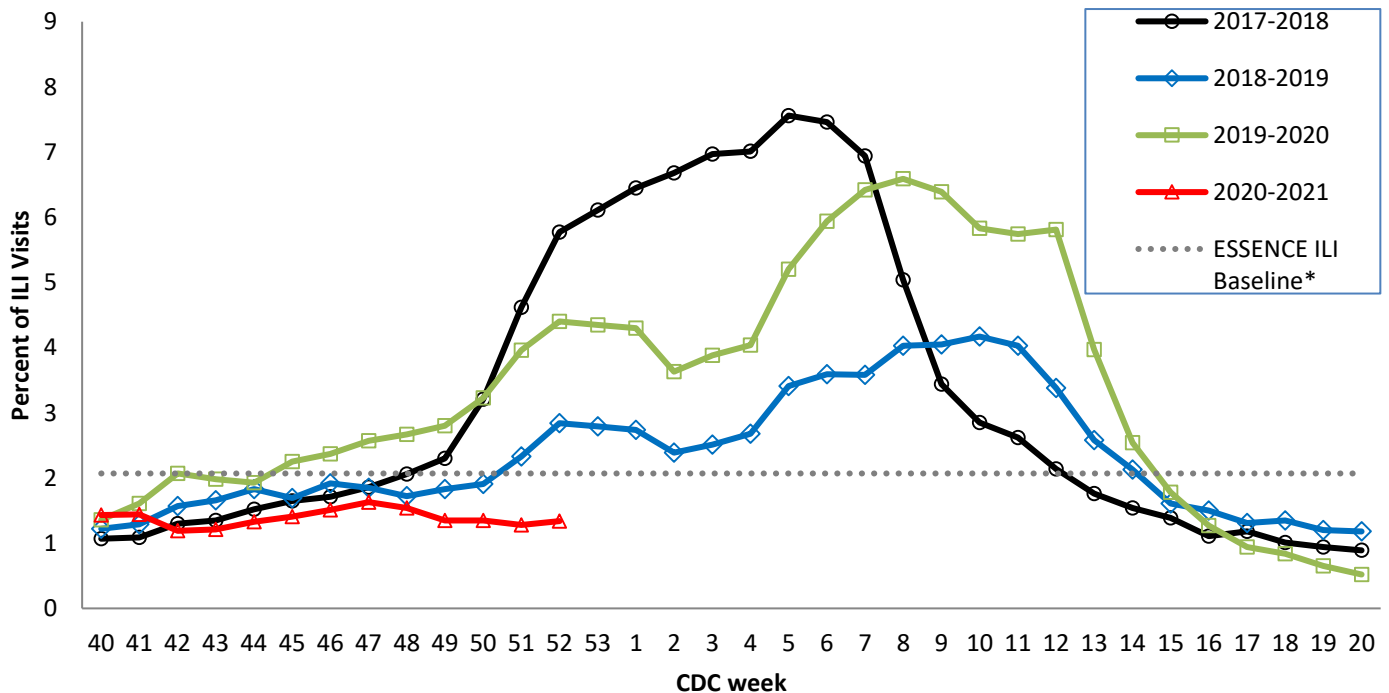
^{*}2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

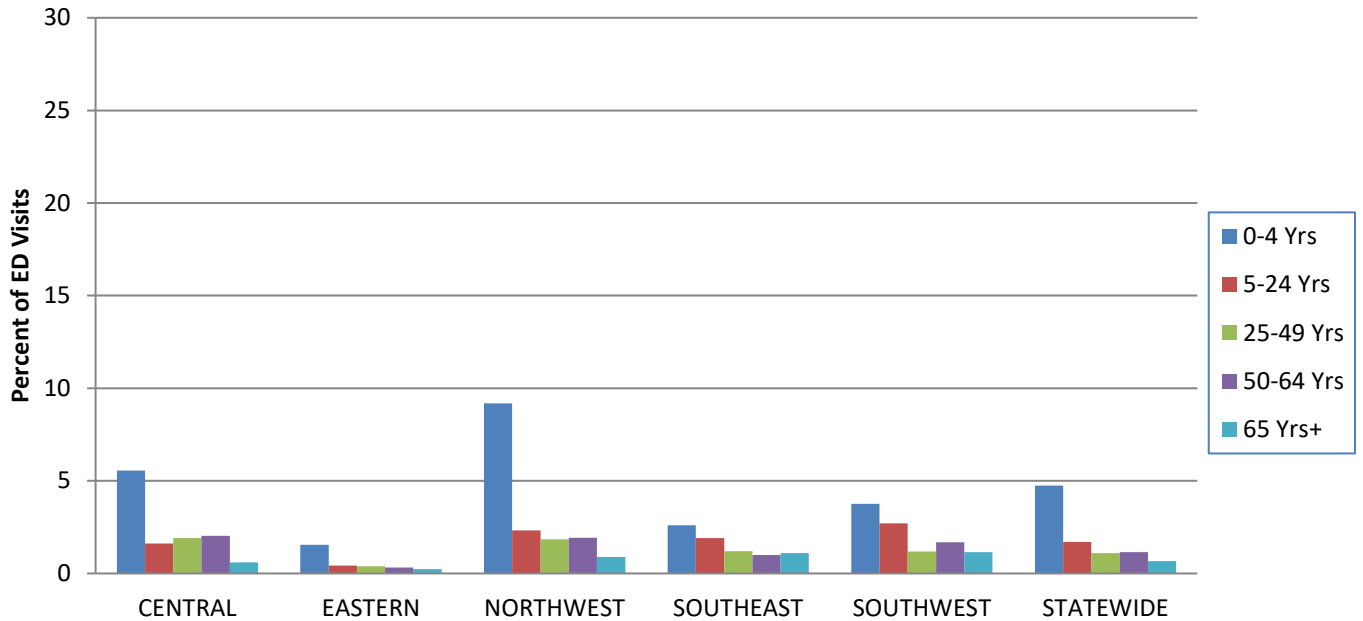


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCE ILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

**There are 53 weeks in 2020. The estimates for the previous years' values for the weeks 53 are the average of weeks 52 and 1.

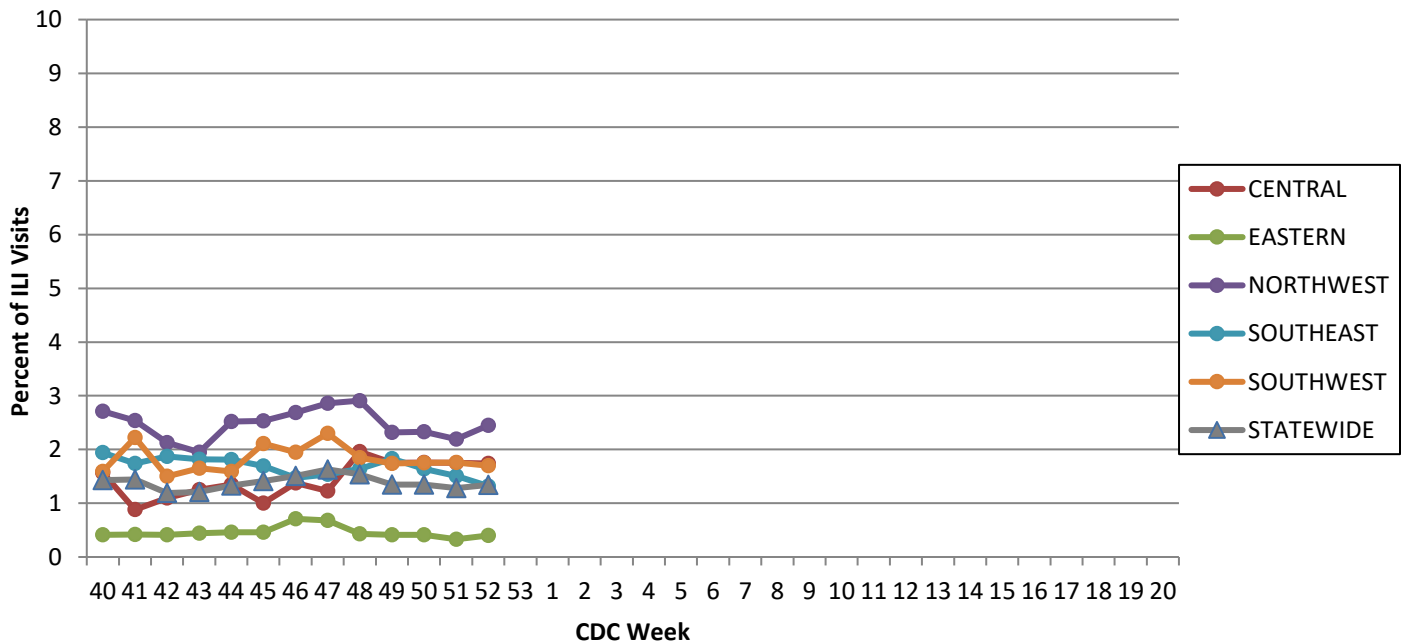
Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 52, 2020*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

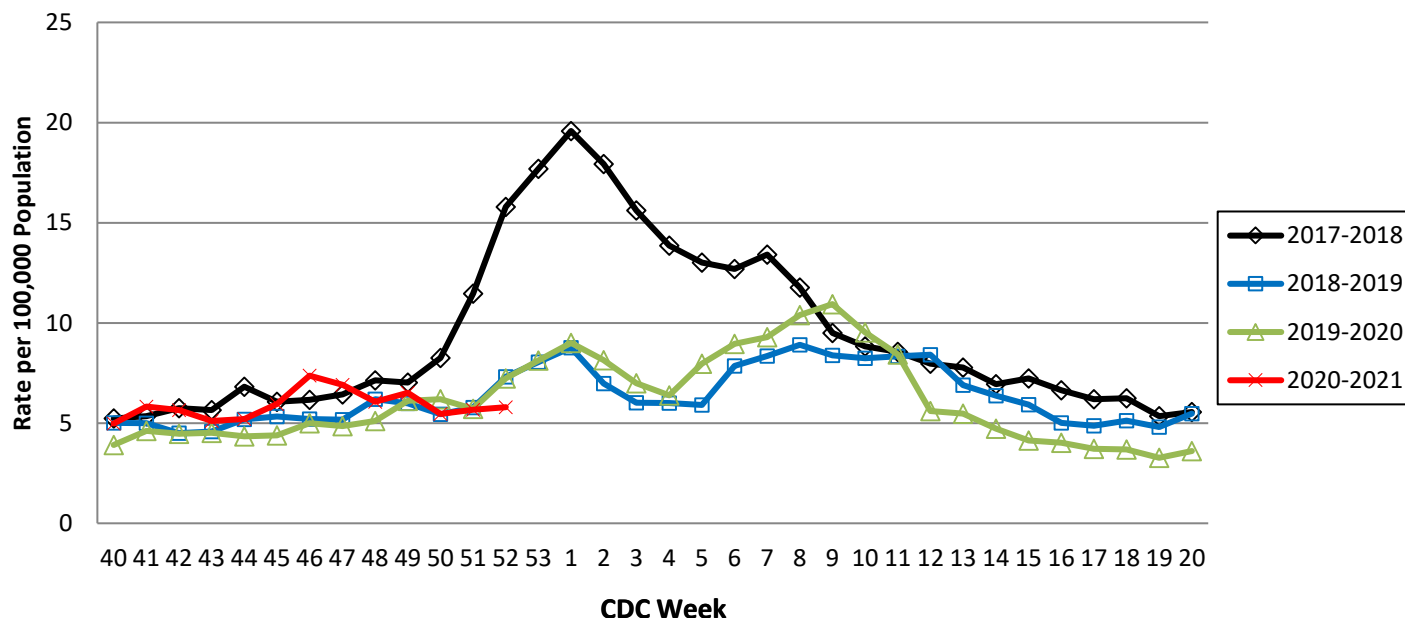
Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

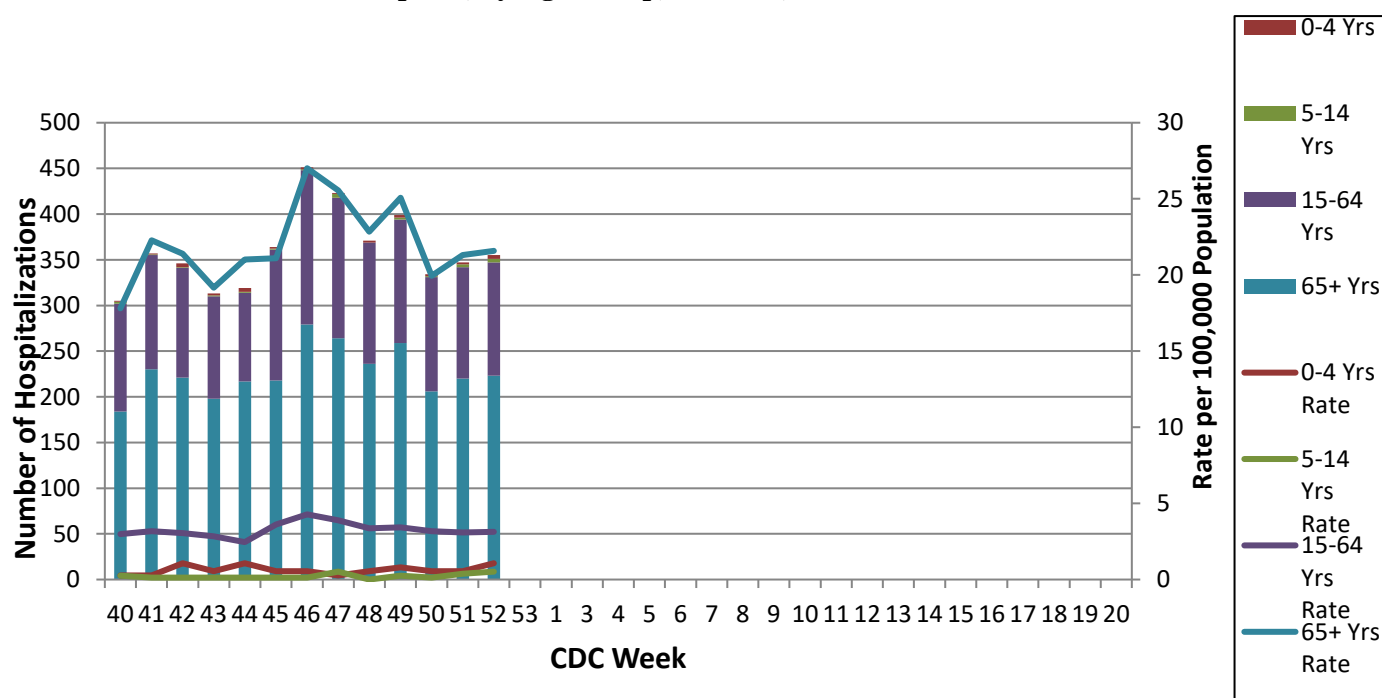
Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 52, 2020-2021 Influenza Season



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):
<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):
<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 53: December 27, 2020 – January 2, 2021

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 53 a total of 38 laboratory-positive³ influenza cases (14 influenza A and 24 influenza B) were reported. A season-to-date total of 742 laboratory-positive influenza cases (351 influenza A, 388 influenza B, and 3 untyped) have been reported in Missouri as of Week 53. The influenza type for cases reported season-to-date includes 47.3 % A, 52.3 % B and 0.4 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 53. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 53 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 1.35% (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of one influenza-associated death has been reported in Missouri as of Week 53⁵.
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 53.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 53
- Reported Week-specific Rate per 100,000 Population, CDC Week 53
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 50 - 53 (December 7 – January 2, 2020)*

Influenza Type	Week 51	Week 52	Week 53	2020-2021* Season-to-Date
Influenza A	14	19	14	351
Influenza B	32	33	24	388
Influenza Unknown Or Untyped	1	0	0	3
Total	47	52	38	742

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 53 (December 27 – January 2, 2020)*

Age Group	Week 53 Cases	Week 53 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	2	0.53	66	17.63
05-24	8	0.50	166	10.35
25-49	20	1.05	229	11.97
50-64	6	0.49	139	11.24
65+	2	0.21	142	14.87
Total	38	0.62	742	12.20

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 53 (December 27, 2020 – January 2, 2021)^{}**

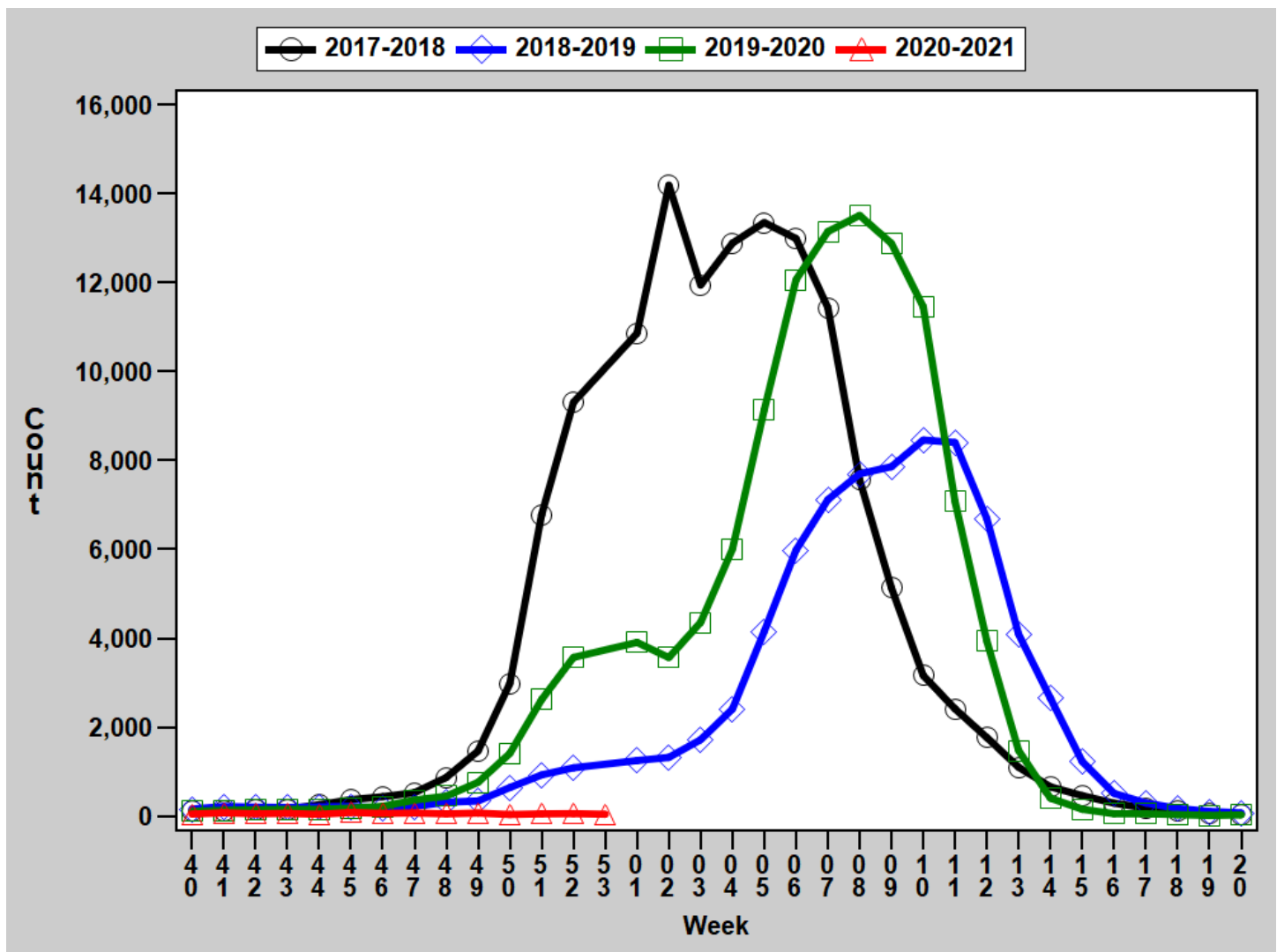
Region	Week 53 Cases	Week 53 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	6	0.89	94	13.88
Eastern	18	0.79	280	12.36
Northwest	2	0.13	101	6.32
Southeast	0	0.00	123	26.08
Southwest	12	1.12	144	13.44
Total	38	0.62	742	12.20

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{**} Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

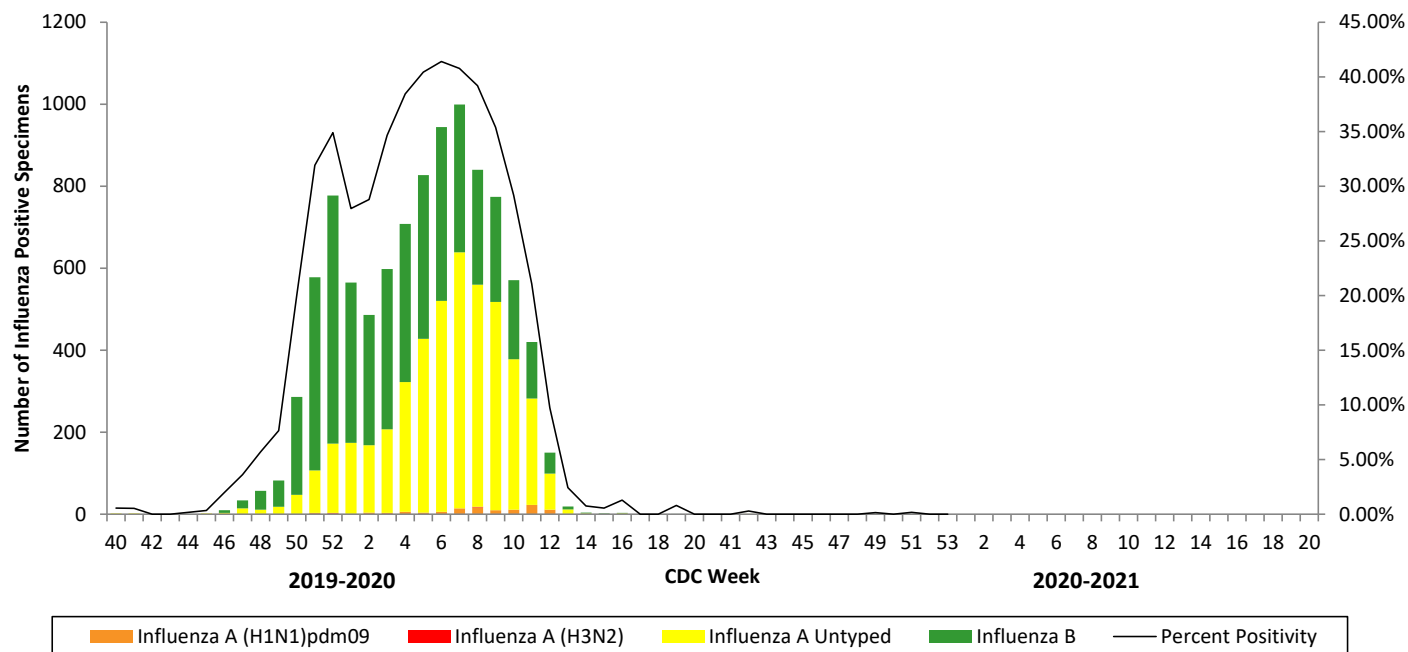
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021^{*}



† Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

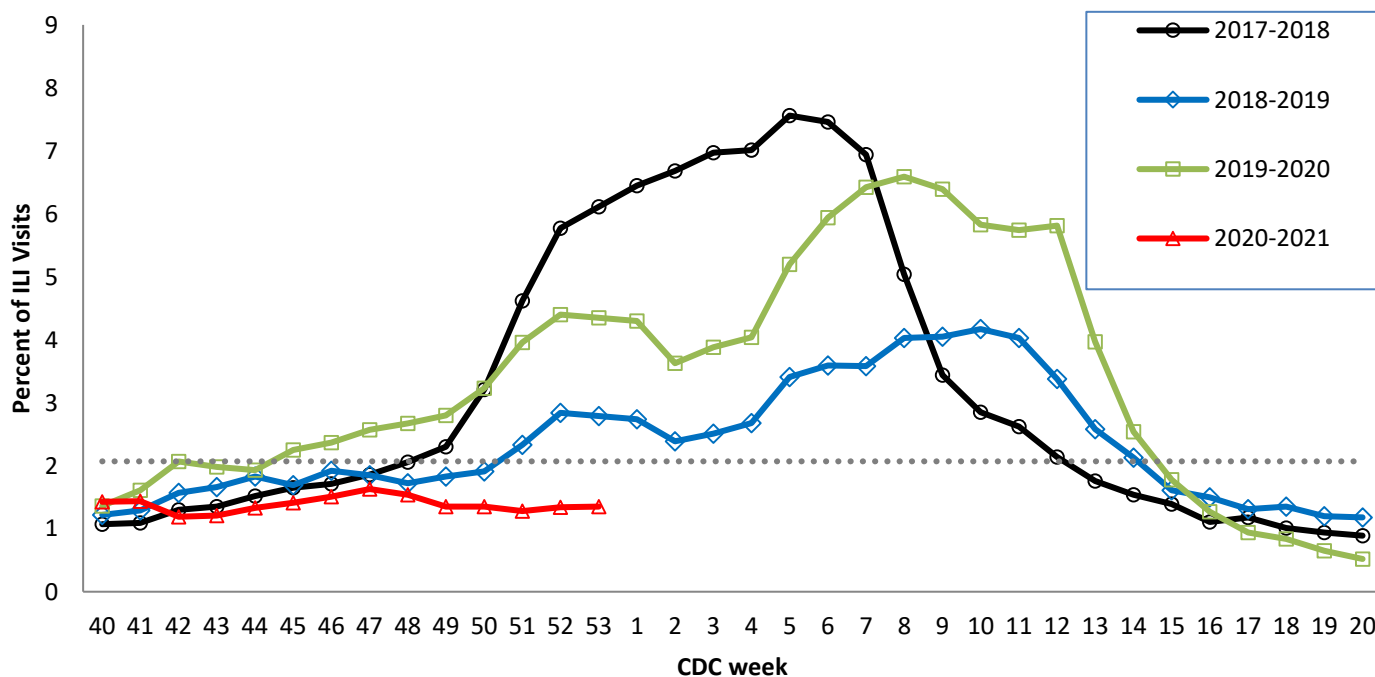
*2020-2021 season-to-date through the week ending May 22, 2021 (Week 20). Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

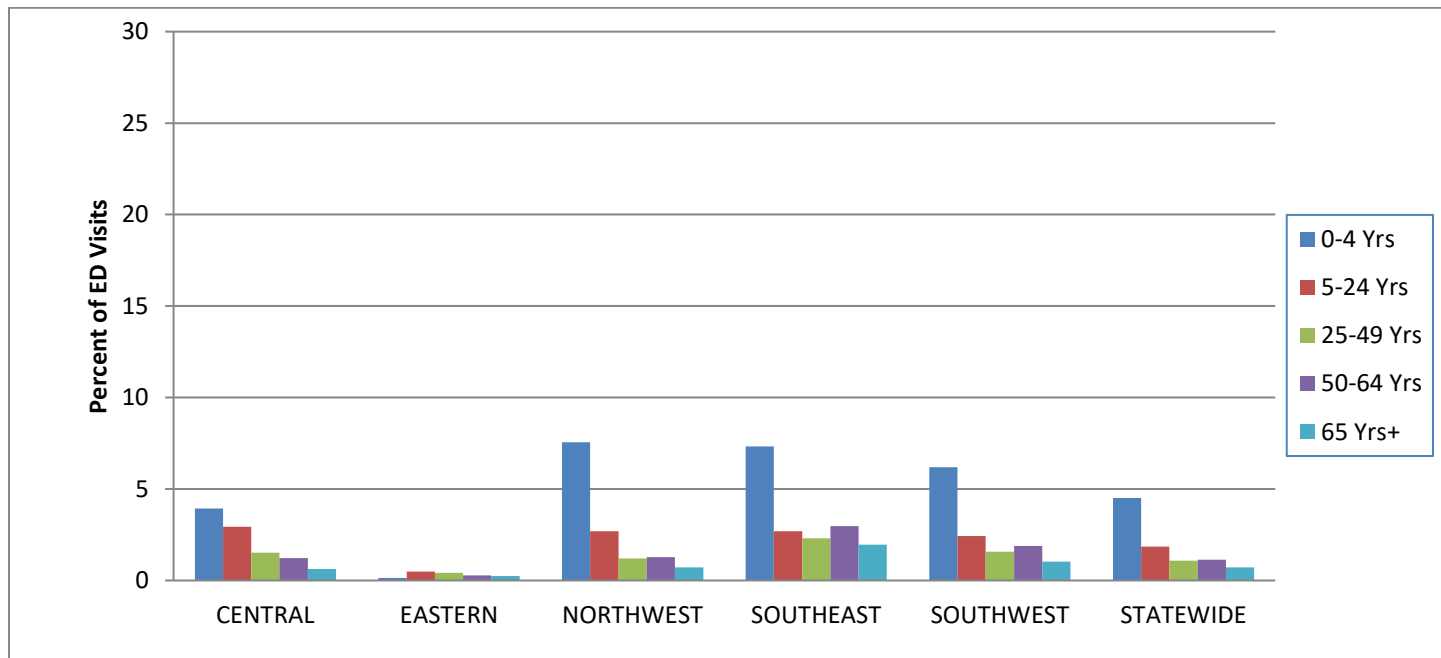


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

*There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

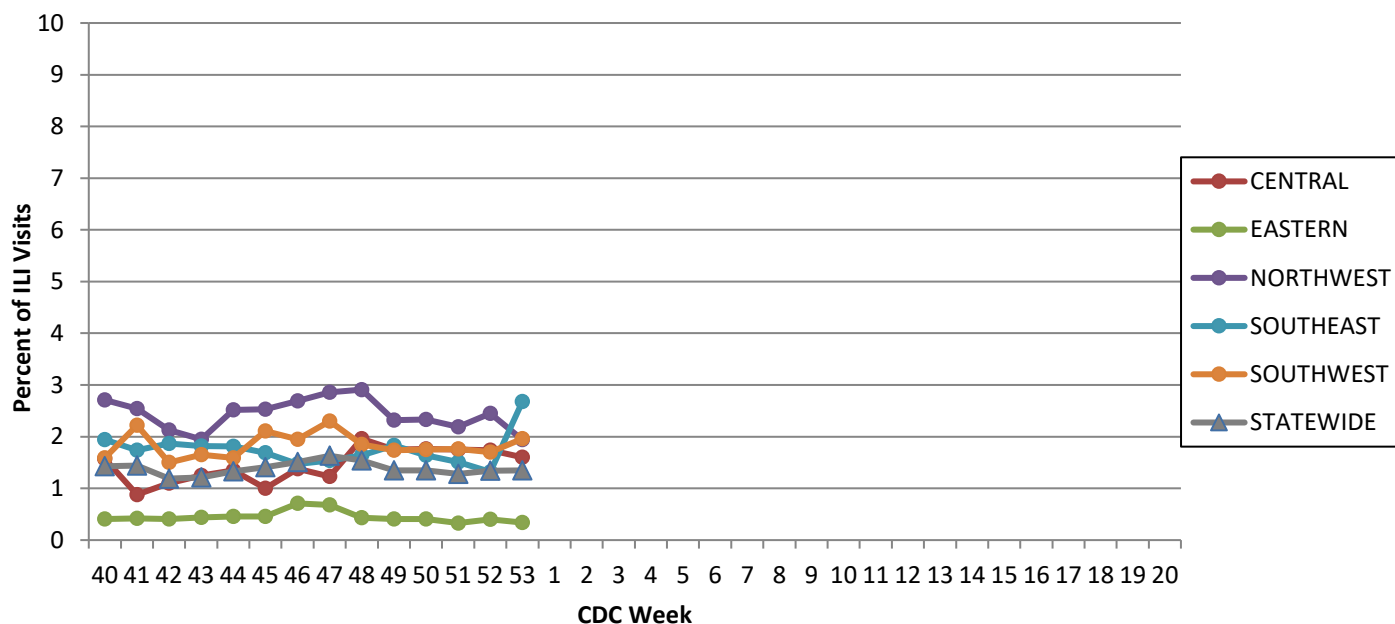
Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 53, 2020*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

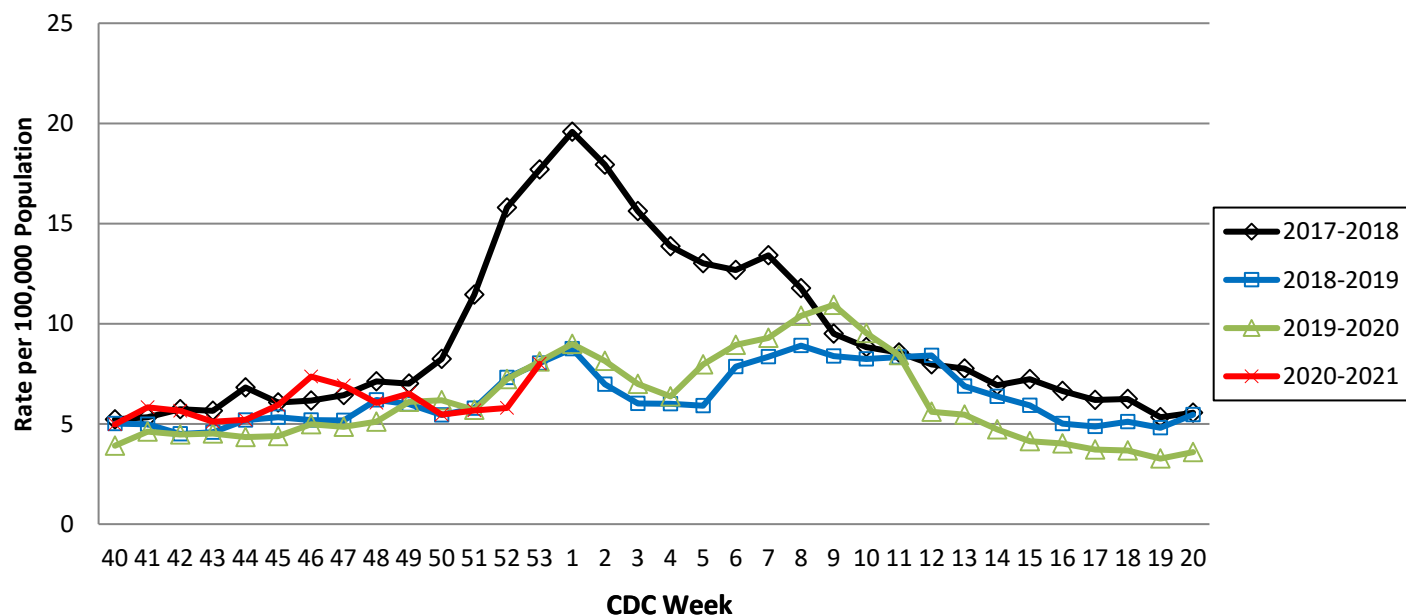
Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons

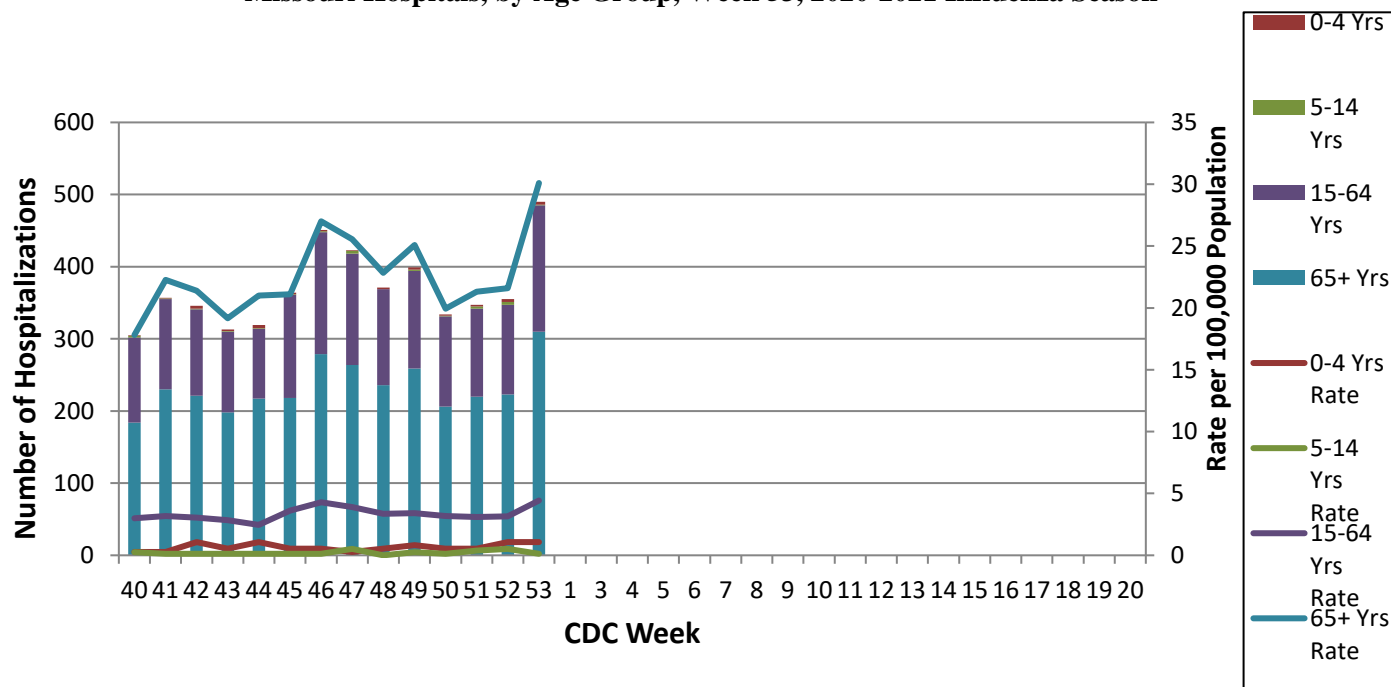


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.

Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 53, 2020-2021 Influenza Season



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):
<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):
<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 1: January 3, 2021 – January 9, 2021

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 1 a total of 74 laboratory-positive³ influenza cases (29 influenza A and 45 influenza B) were reported. A season-to-date total of 844 laboratory-positive influenza cases (391 influenza A, 450 influenza B, and 3 untyped) have been reported in Missouri as of Week 1. The influenza type for cases reported season-to-date includes 46.3 % A, 53.3 % B and 0.4 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 1. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 1 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 1.13% (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of one influenza-associated death has been reported in Missouri as of Week 1.⁵
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 1.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 1
- Reported Week-specific Rate per 100,000 Population, CDC Week 1
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 52 - 1 (December 14 – January 9, 2020)*

Influenza Type	Week 52	Week 53	Week 1	2020-2021* Season-to-Date
Influenza A	20	21	29	391
Influenza B	34	39	45	450
Influenza Unknown Or Untyped	0	0	0	3
Total	54	60	74	844

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 1 (January 3 – January 9, 2020)**

Age Group	Week 1 Cases	Week 1 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	8	2.14	74	19.77
05-24	20	1.25	189	11.78
25-49	25	1.31	267	13.95
50-64	15	1.21	158	12.78
65+	6	0.63	156	16.34
Total	74	1.22	844	13.87

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 1 (January 3, 2020 – January 9, 2020)[‡]

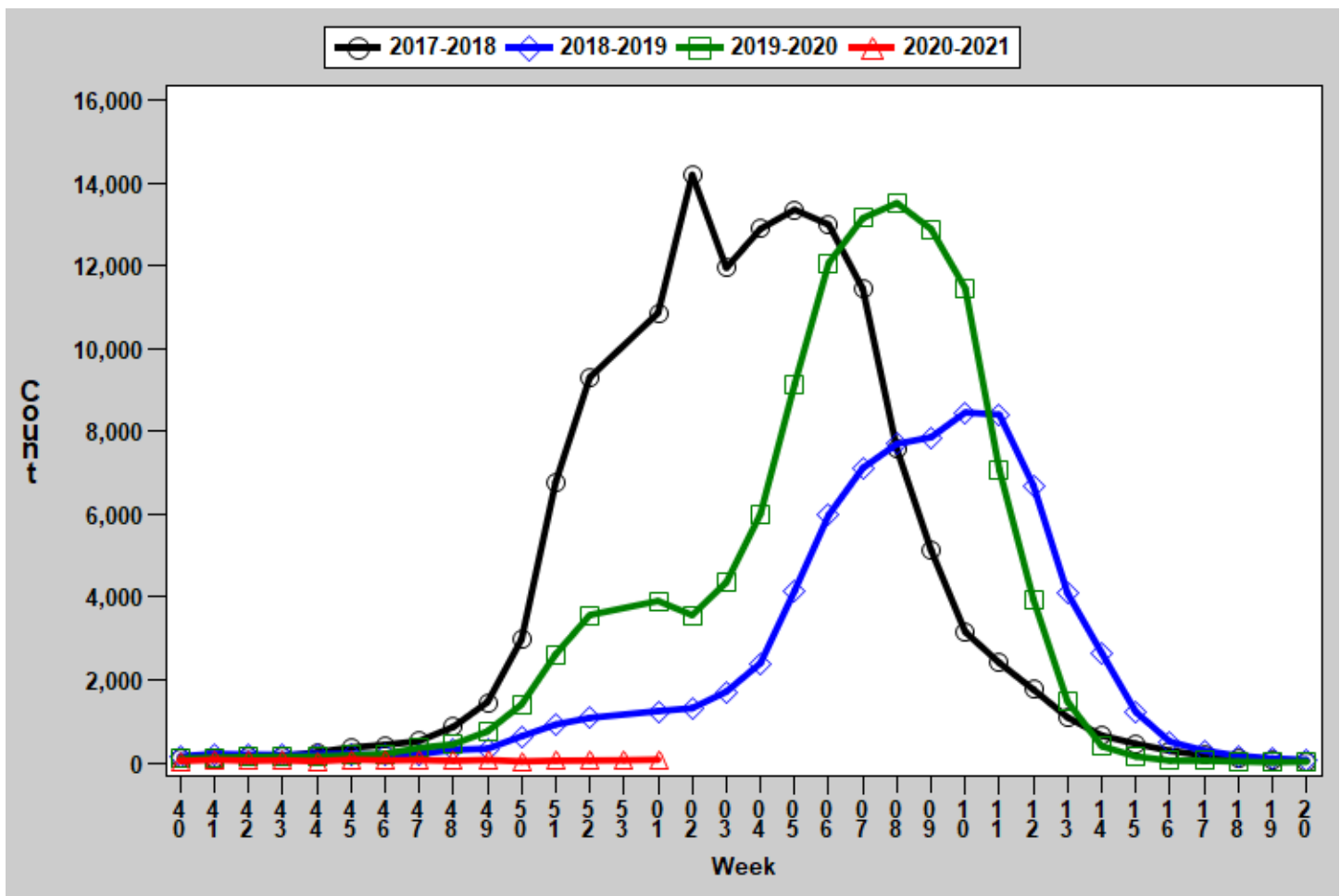
Region	Week 1 Cases	Week 1 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	7	1.03	109	16.10
Eastern	43	1.90	325	14.34
Northwest	0	0.00	101	6.32
Southeast	24	5.09	163	34.56
Southwest	0	0.00	146	13.63
Total	74	1.22	844	13.87

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

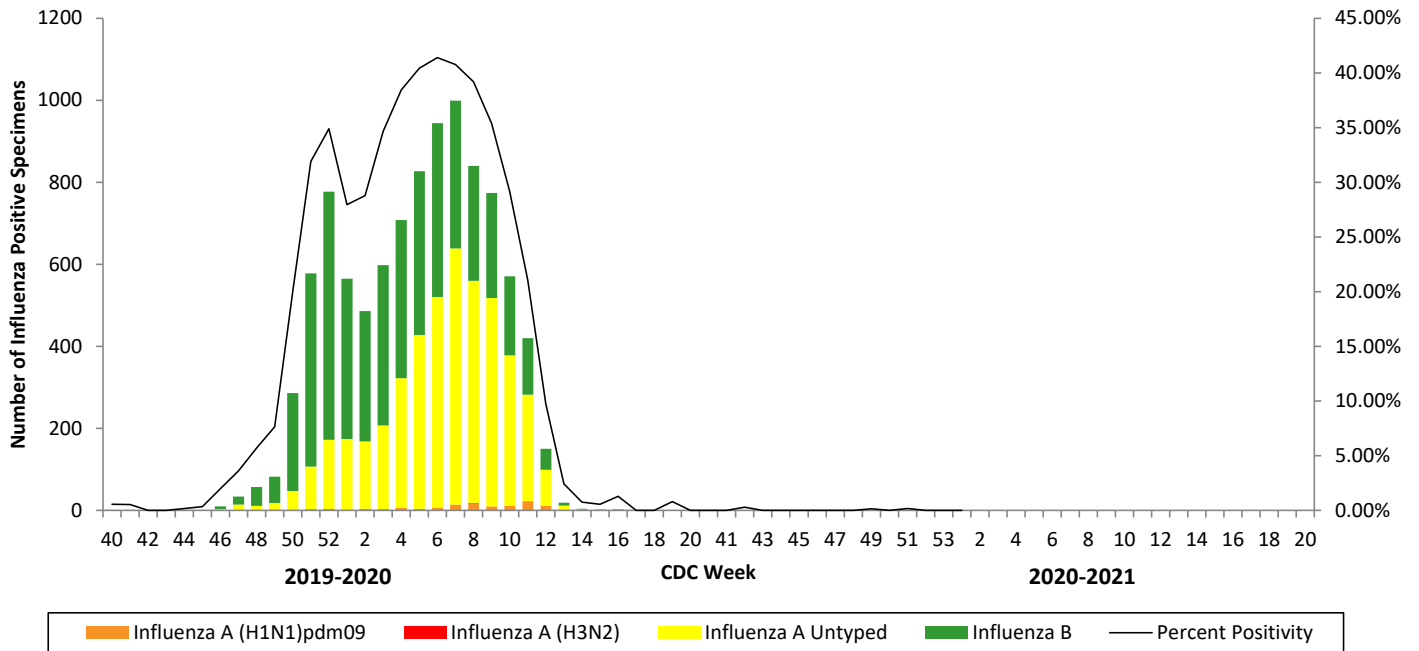
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021*



[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

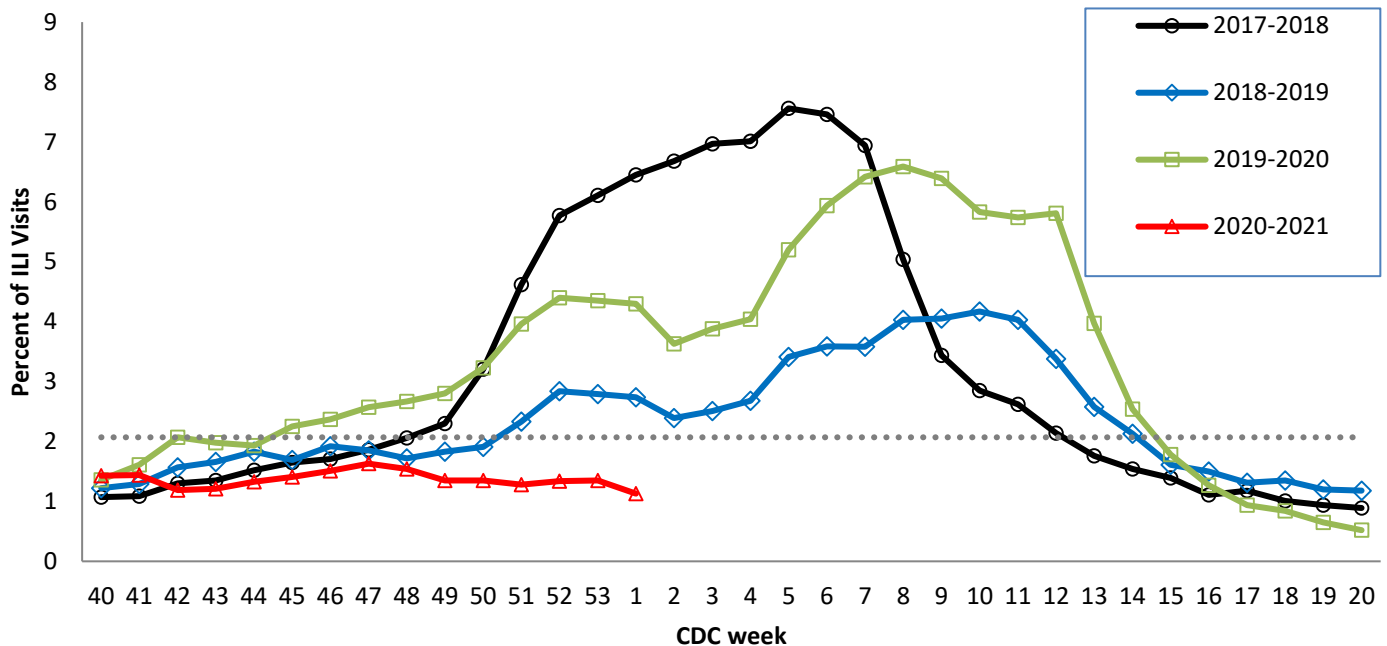
*2020-2021 season-to-date through the week ending May 22, 2021 (Week 20). Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

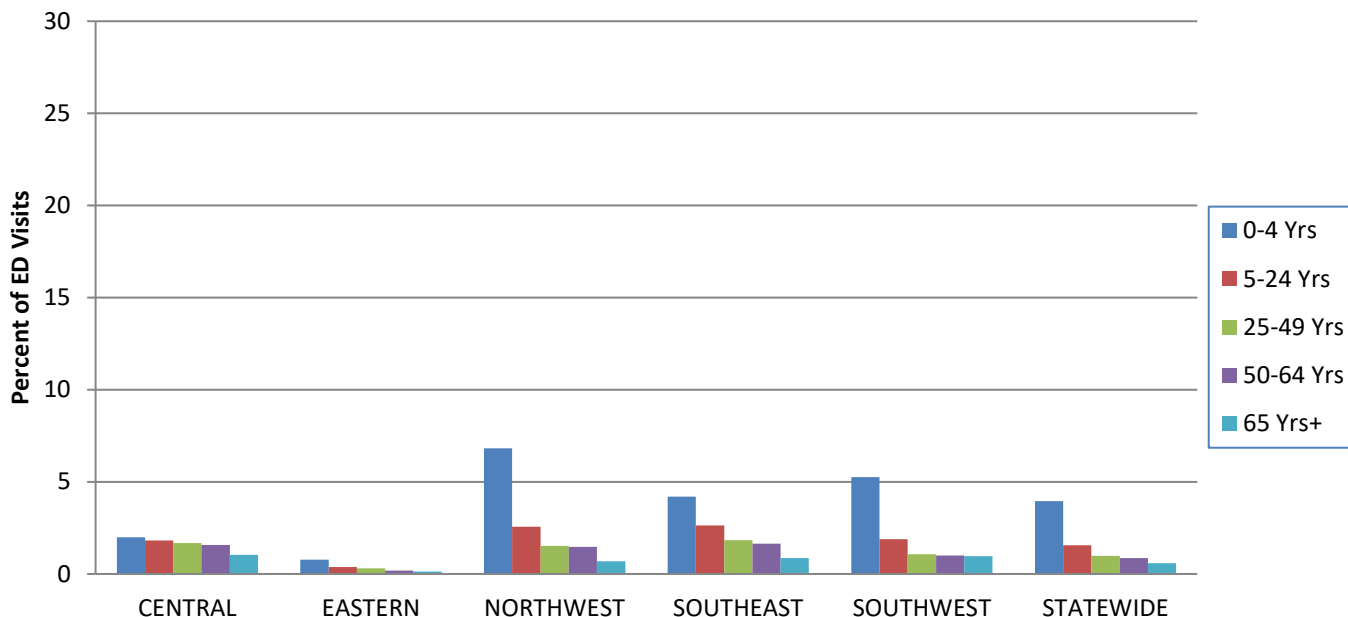


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

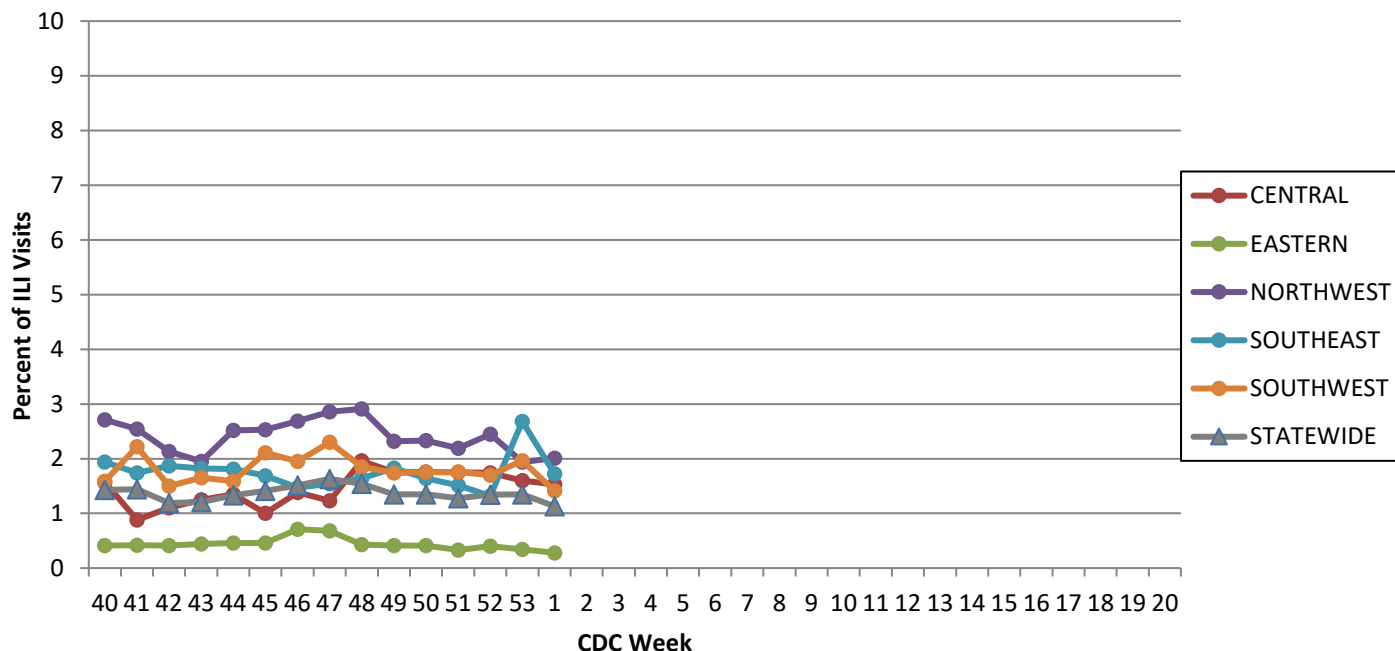
*There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 1, 2020*



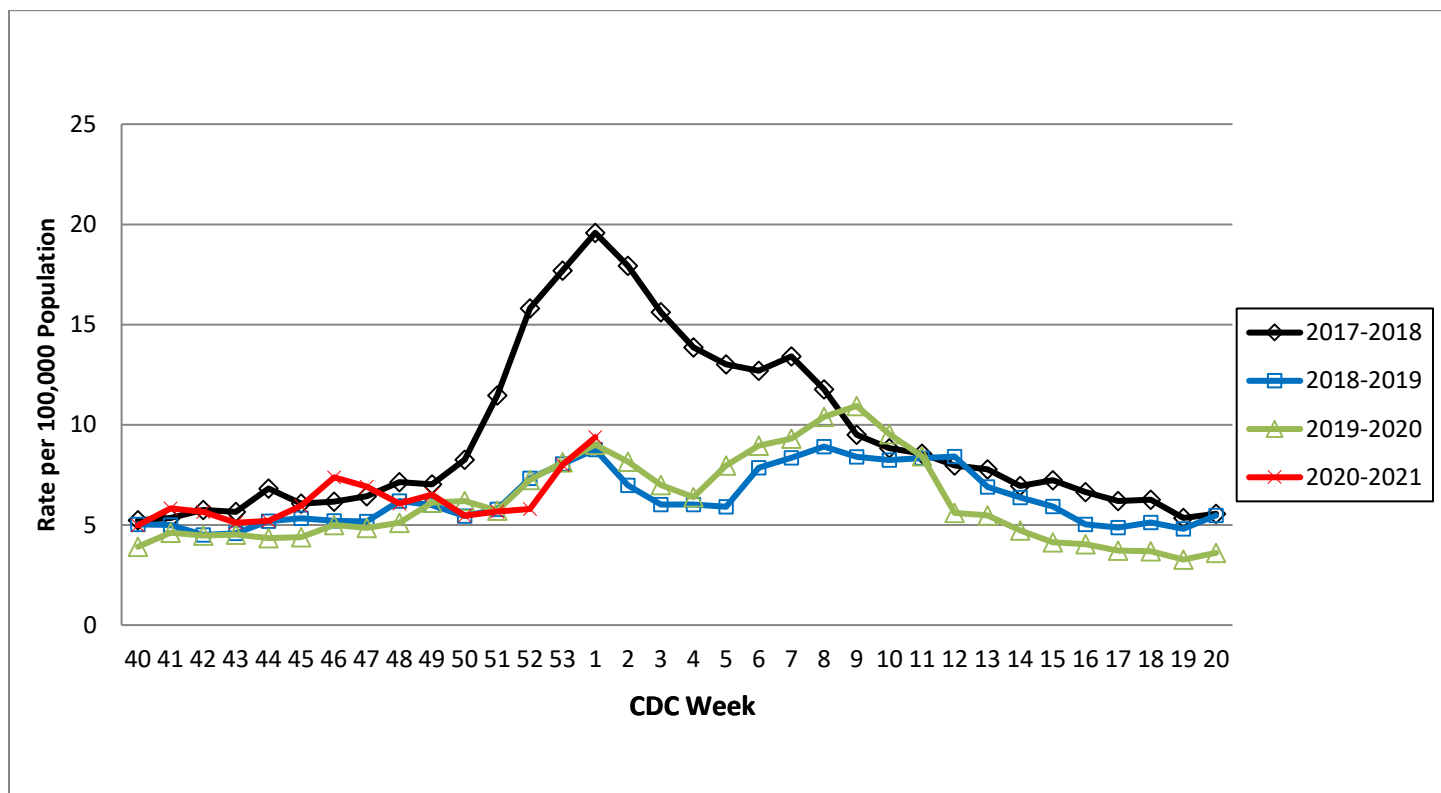
Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.
 *The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.
 *The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons**

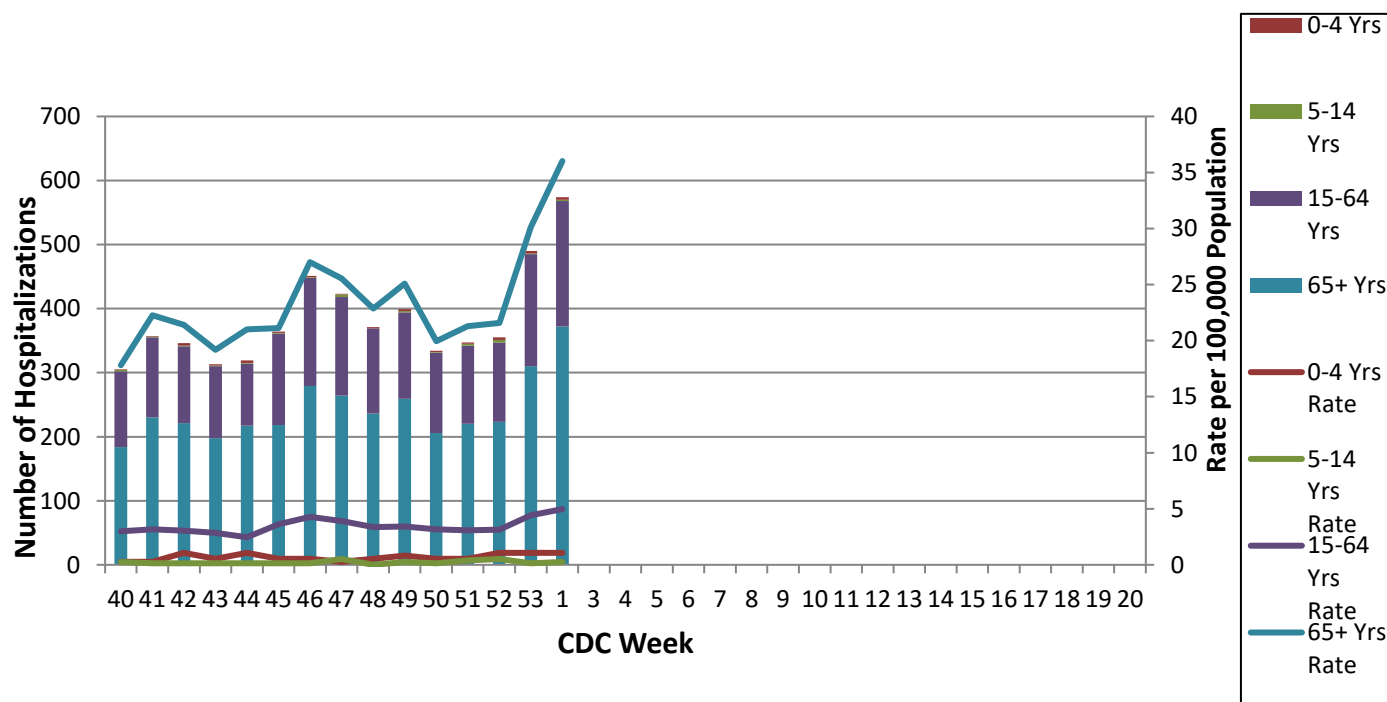


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

** Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 1, 2020-2021 Influenza Season**



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.

** Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):

<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):

<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:

http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 2: January 10, 2021 – January 16, 2021

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 2 a total of 60 laboratory-positive³ influenza cases (15 influenza A and 45 influenza B) were reported. A season-to-date total of 918 laboratory-positive influenza cases (411 influenza A, 504 influenza B, and 3 untyped) have been reported in Missouri as of Week 2. The influenza type for cases reported season-to-date includes 44.8 % A, 54.9 % B and 0.3 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 2. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 2 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 1.08% (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of one influenza-associated death has been reported in Missouri as of Week 2⁵.
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 2.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 2
- Reported Week-specific Rate per 100,000 Population, CDC Week 2
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 53 - 2 (December 27, 2020 – January 16, 2021)^{*}

Influenza Type	Week 53	Week 1	Week 2	2020-2021* Season-to-Date
Influenza A	21	34	15	411
Influenza B	39	52	45	504
Influenza Unknown Or Untyped	0	0	0	3
Total	60	86	60	918

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*} Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 2 (January 10 – January 16, 2021)^{}**

Age Group	Week 2 Cases	Week 2 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	6	1.60	82	21.90
05-24	10	0.62	206	12.84
25-49	15	0.78	287	15.00
50-64	16	1.29	174	14.07
65+	13	1.36	169	17.70
Total	60	0.99	918	15.09

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*} Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 2 (January 10 – January 16, 2021)**

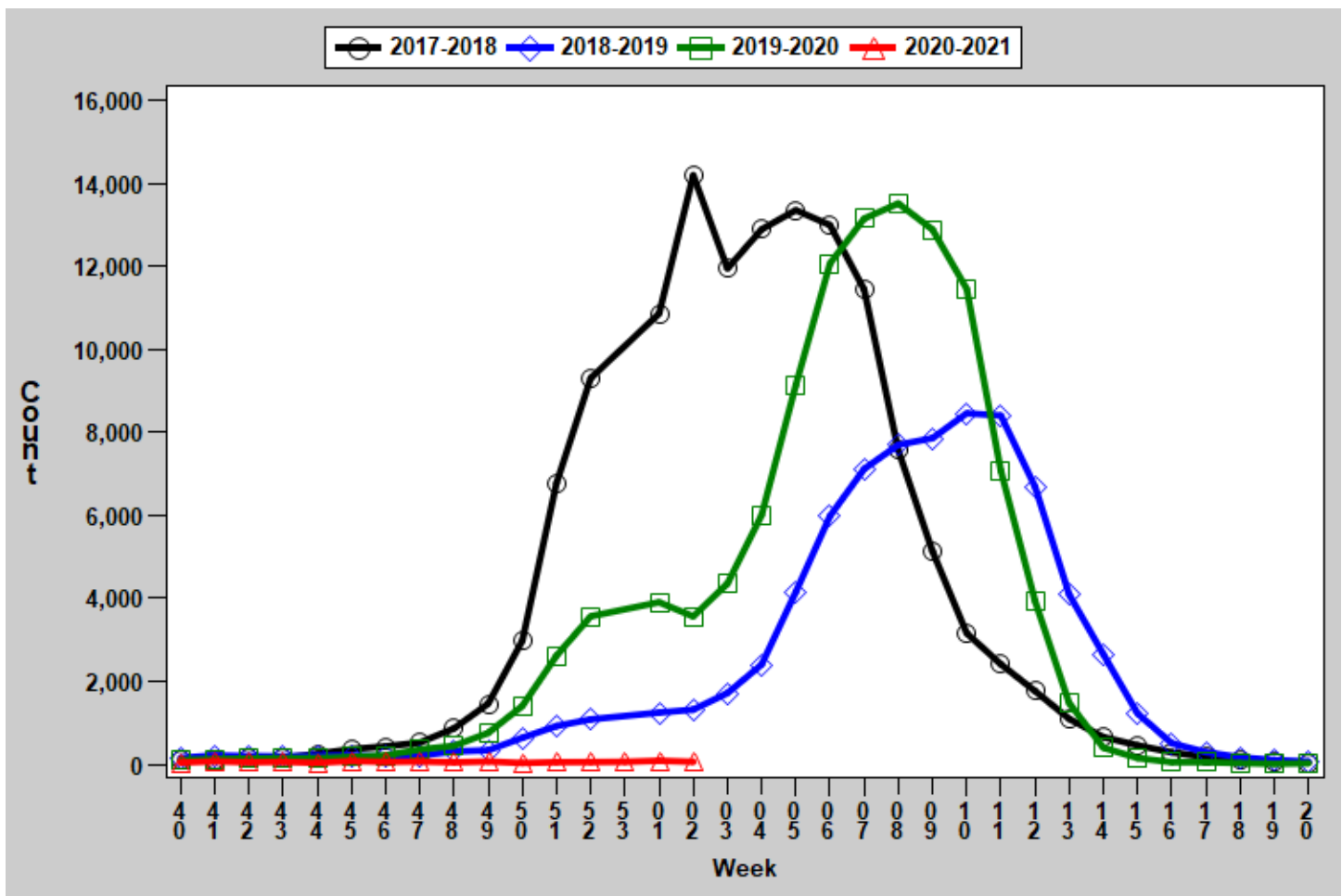
Region	Week 2 Cases	Week 2 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	1	0.15	114	16.84
Eastern	44	1.94	369	16.28
Northwest	3	0.19	105	6.57
Southeast	5	1.06	172	36.46
Southwest	7	0.65	158	14.75
Total	60	0.99	918	15.09

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

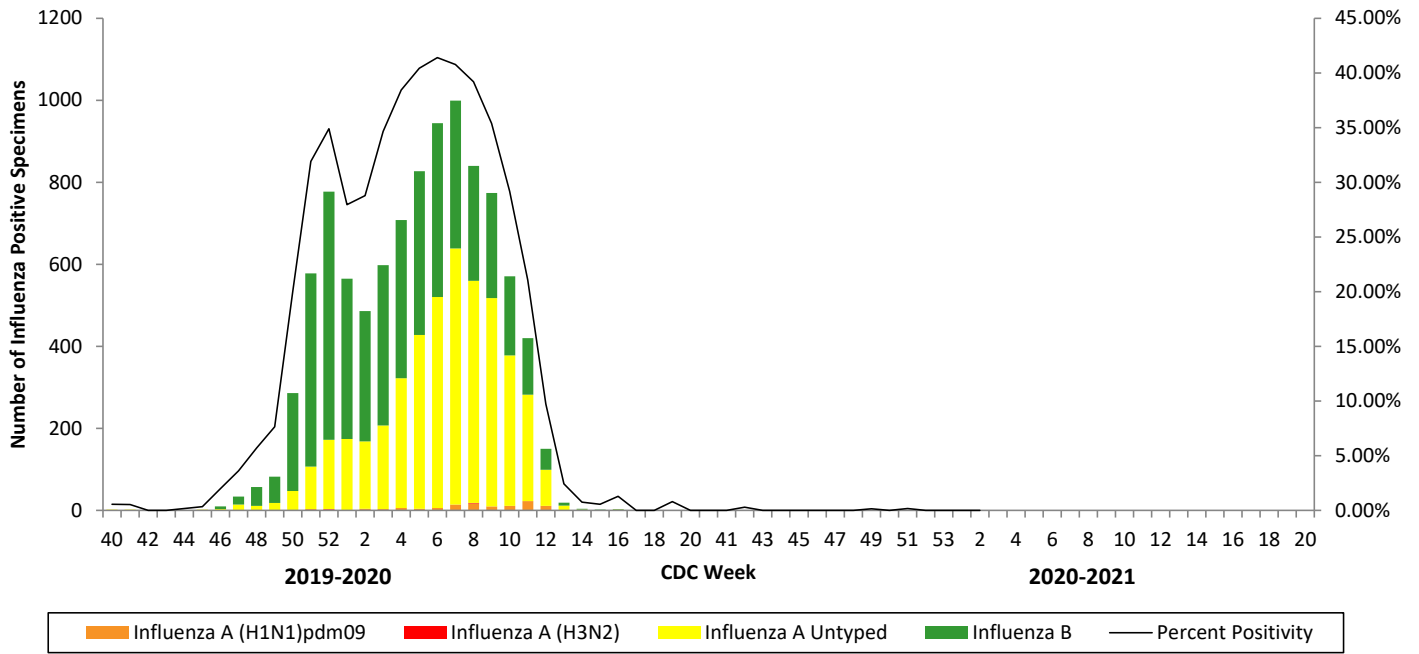
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021*



[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

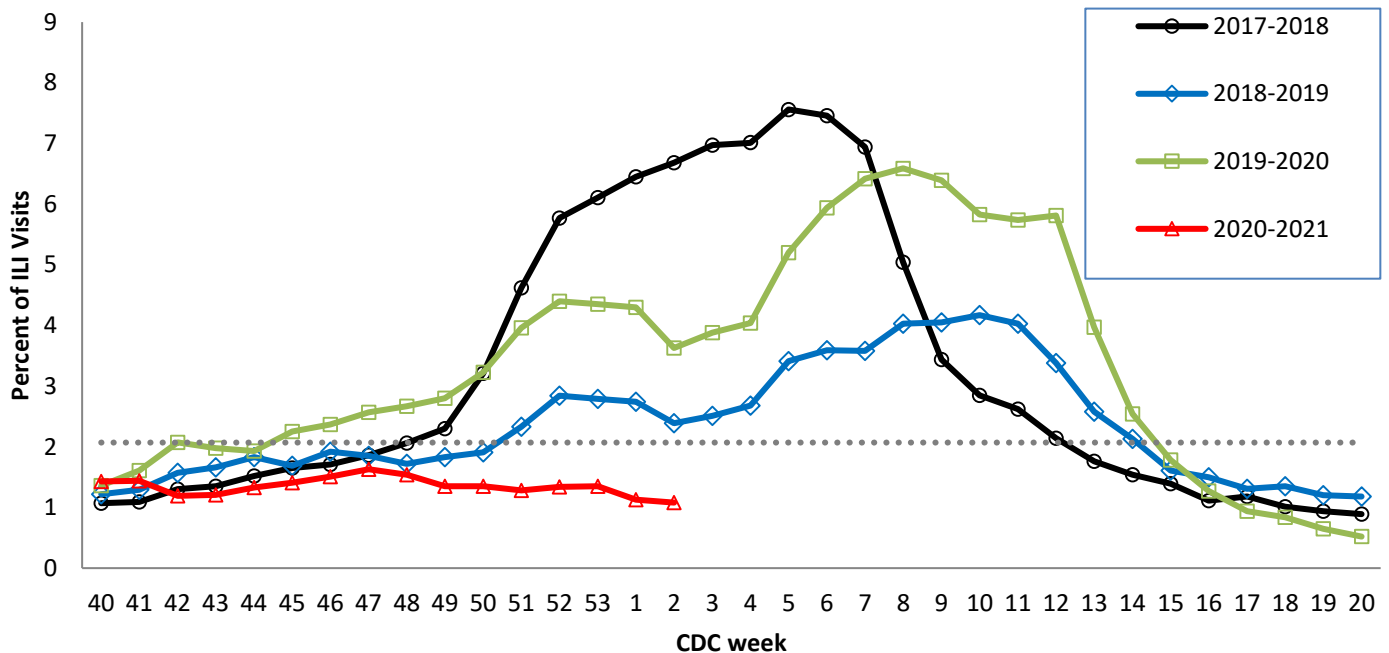
*2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

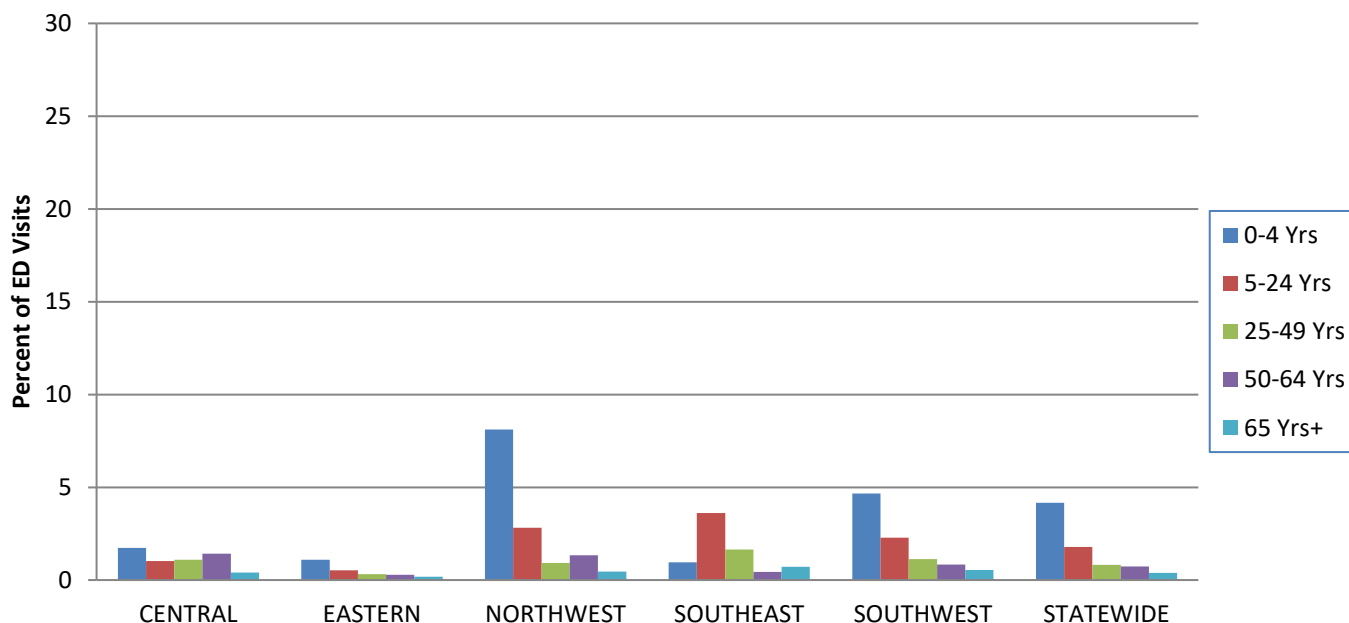


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

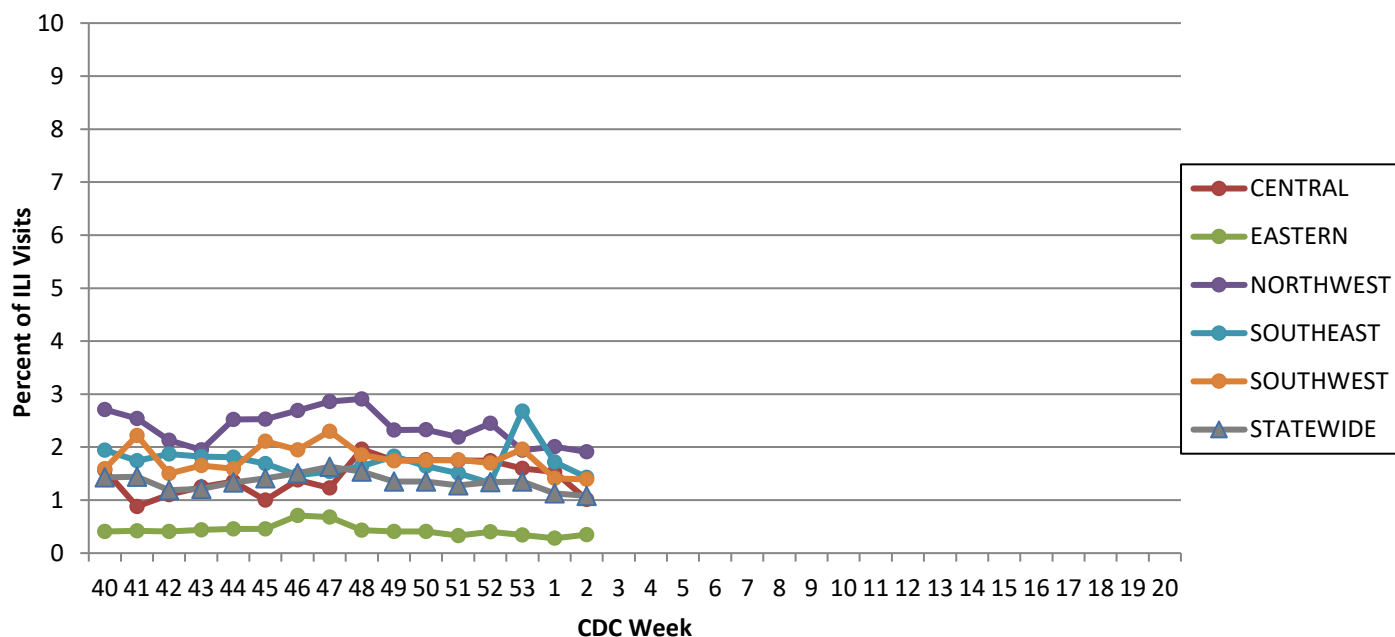
*There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 2, 2020*



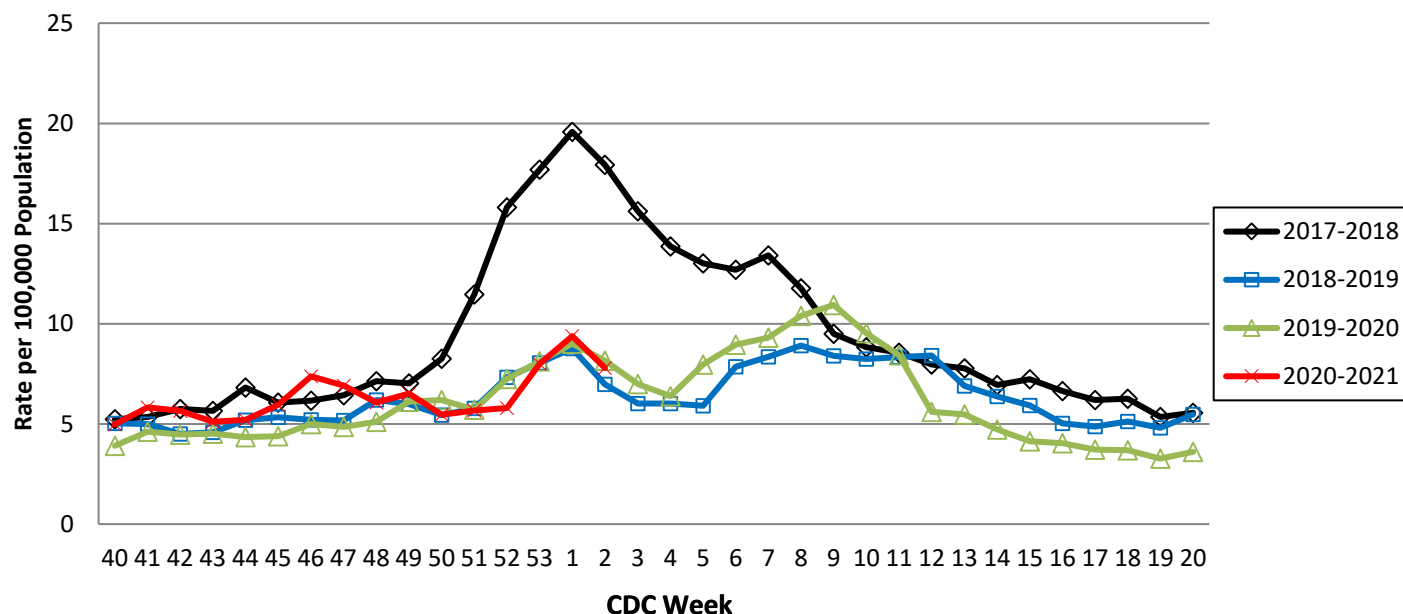
Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.
 *The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.
 *The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons**

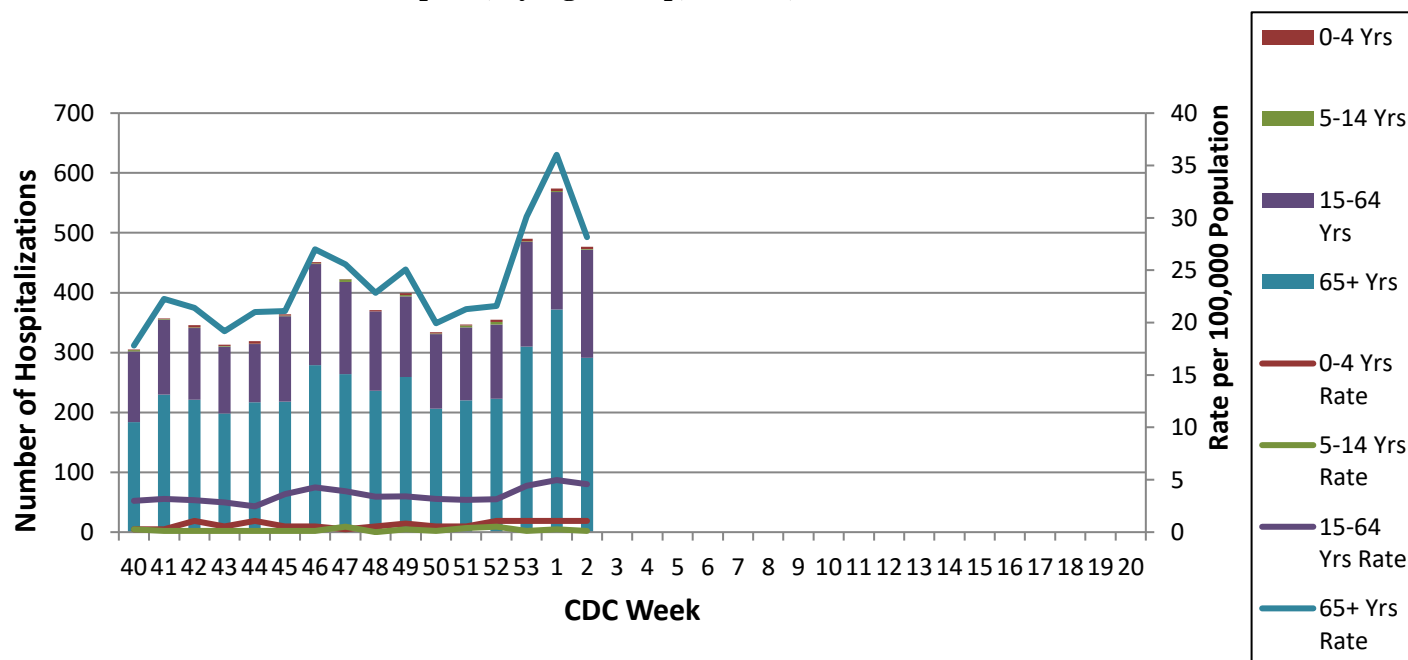


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 2, 2020-2021 Influenza Season**



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):
<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):
<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 3: January 17, 2021 – January 23, 2021

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 3 a total of 48 laboratory-positive³ influenza cases (17 influenza A and 31 influenza B) were reported. A season-to-date total of 1,017 laboratory-positive influenza cases (444 influenza A, 571 influenza B, and 2 untyped) have been reported in Missouri as of Week 3. The influenza type for cases reported season-to-date includes 43.7 % A, 56.1 % B and 0.2 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 3. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 3 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 1.13% (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of one influenza-associated death has been reported in Missouri as of Week 3⁵.
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 3.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 3
- Reported Week-specific Rate per 100,000 Population, CDC Week 3
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 1 - 3 (January 3, 2021 – January 23, 2021)*

Influenza Type	Week 1	Week 2	Week 3	2020-2021* Season-to-Date
Influenza A	34	30	17	444
Influenza B	52	79	31	571
Influenza Unknown Or Untyped	0	0	0	2
Total	86	109	48	1,017

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 3 (January 17 – January 23, 2021)*

Age Group	Week 3 Cases	Week 3 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	7	1.87	93	24.84
05-24	19	1.18	249	15.52
25-49	6	0.31	300	15.68
50-64	7	0.57	189	15.29
65+	9	0.94	186	19.48
Total	48	0.79	1,017	16.72

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 3 (January 17 – January 23, 2021)**

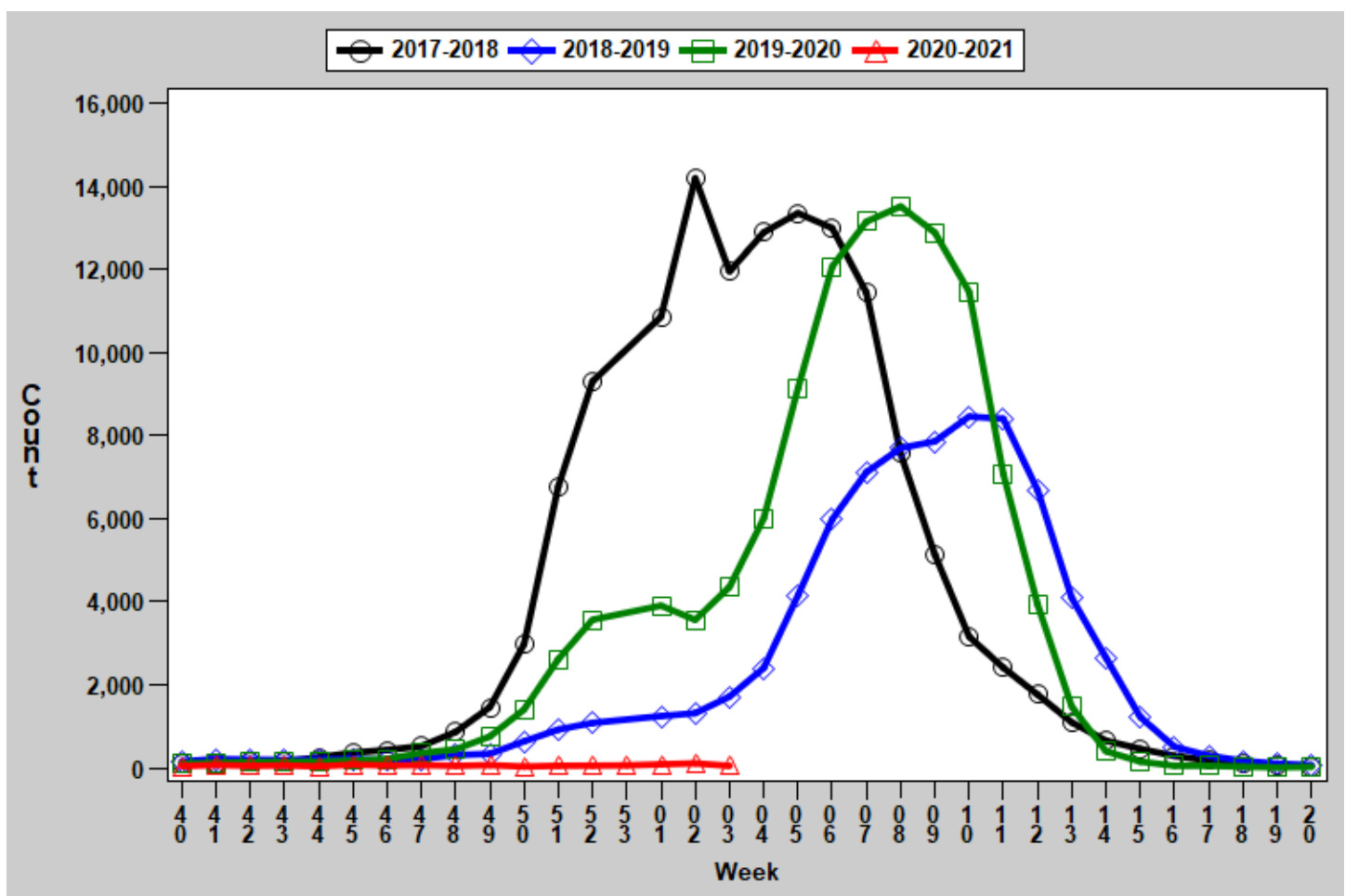
Region	Week 3 Cases	Week 3 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	4	0.59	130	19.20
Eastern	27	1.19	398	17.56
Northwest	1	0.06	108	6.76
Southeast	11	2.33	213	45.16
Southwest	5	0.47	168	15.68
Total	48	0.79	1,017	16.72

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

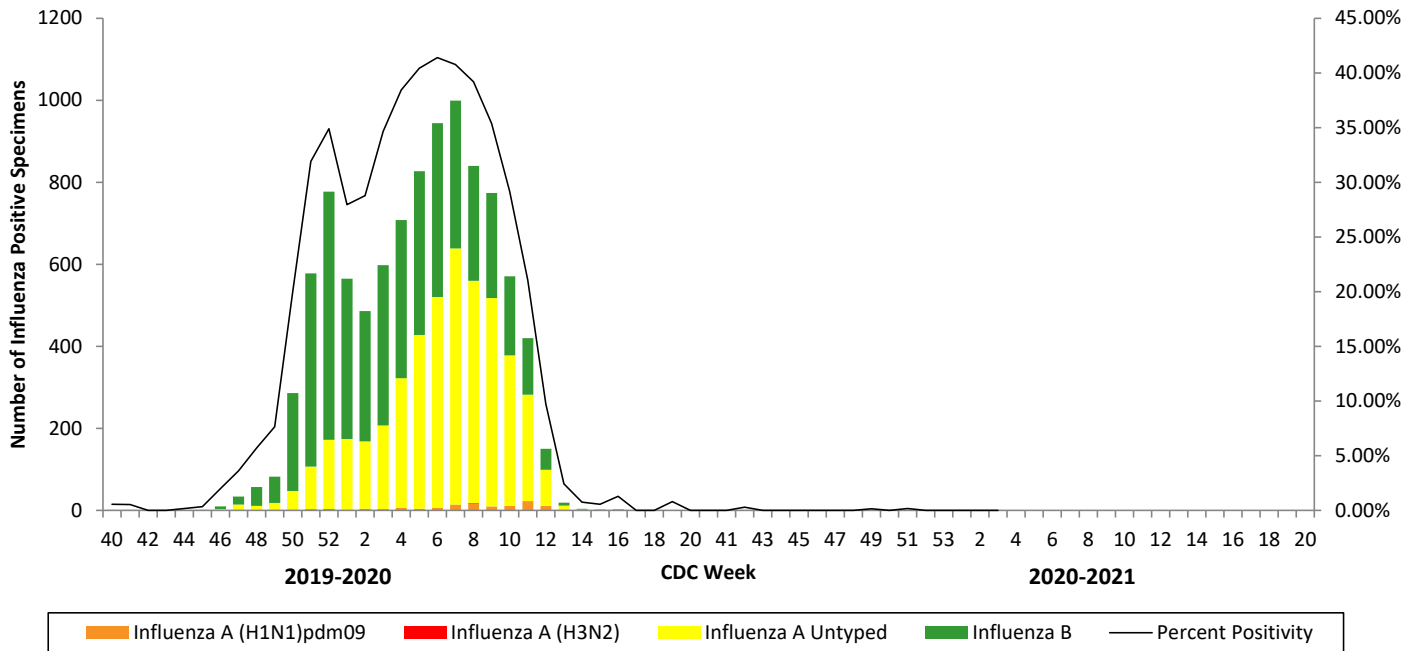
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021*



[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

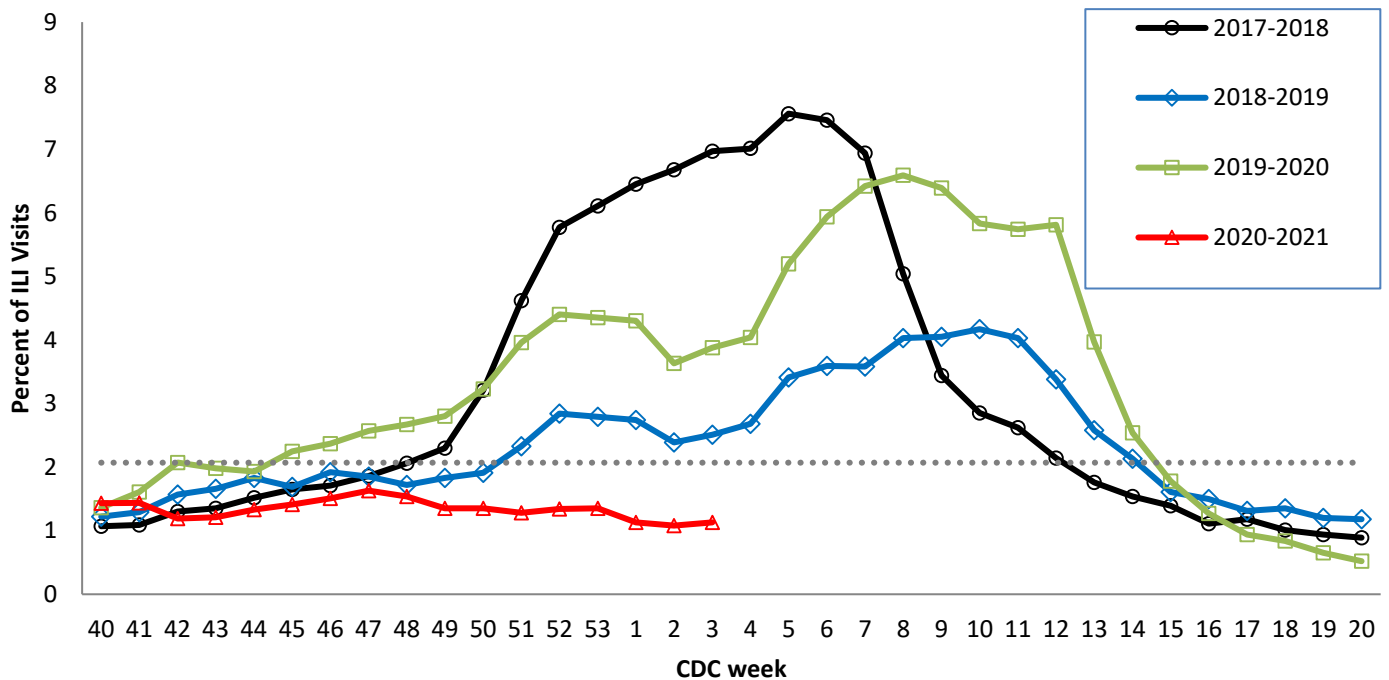
*2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

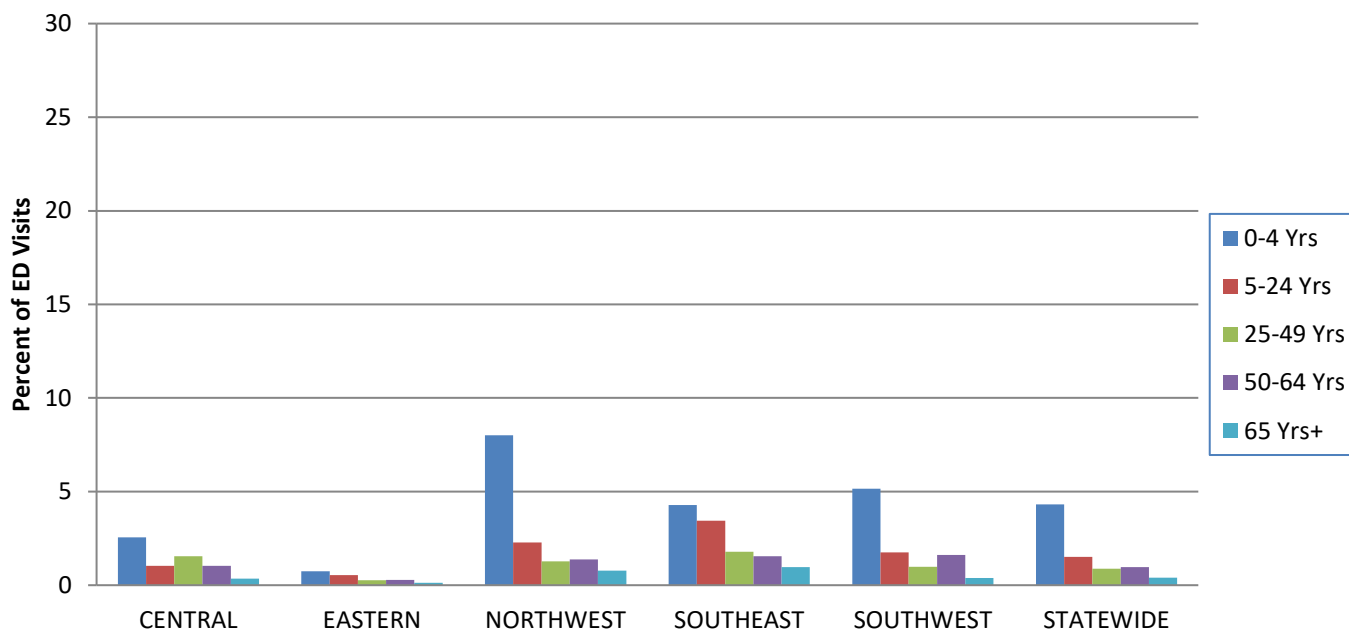


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

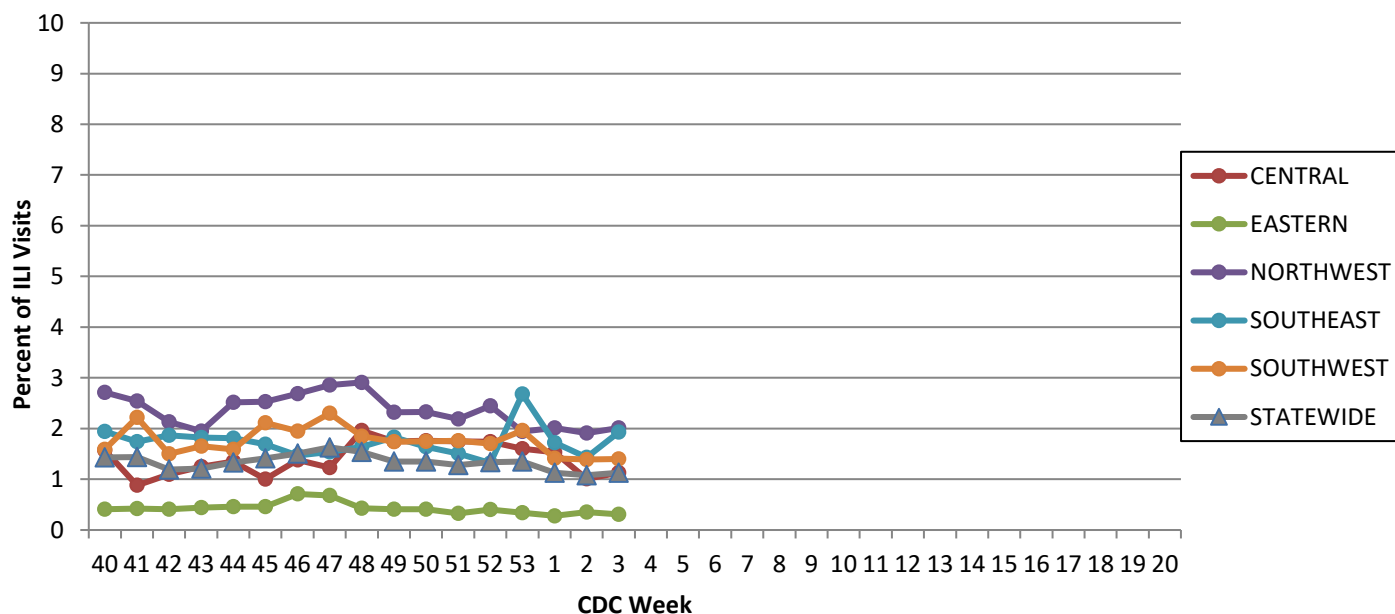
*There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 3, 2020*



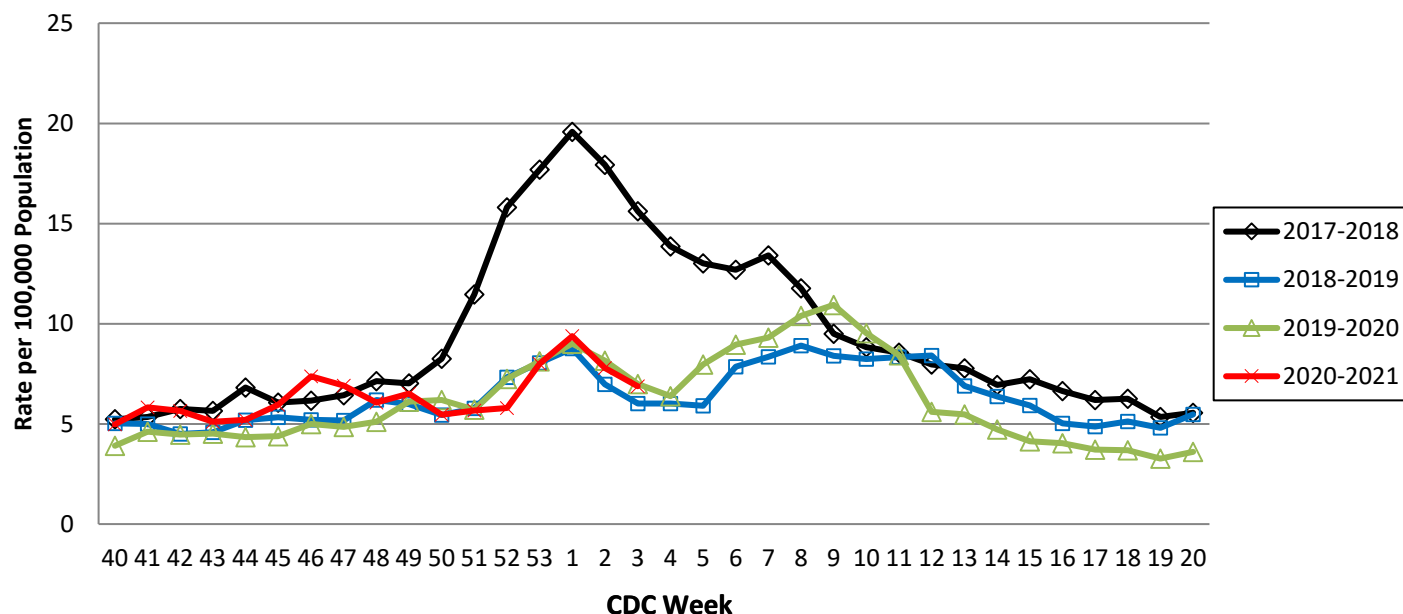
Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.
 *The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.
 *The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons**

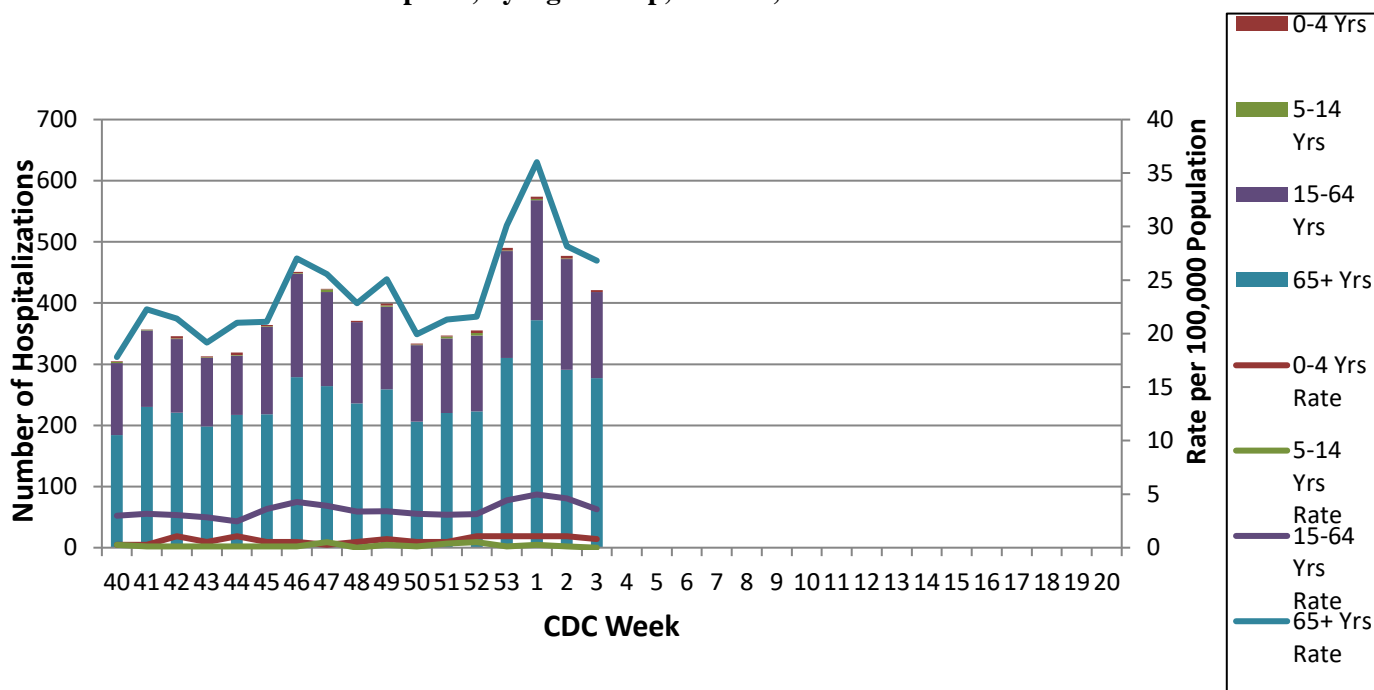


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 3, 2020-2021 Influenza Season**



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):
<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):
<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 4: January 24, 2021 – January 30, 2021

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 4 a total of 47 laboratory-positive³ influenza cases (16 influenza A and 31 influenza B) were reported. A season-to-date total of 1,067 laboratory-positive influenza cases (460 influenza A, 605 influenza B, and 2 untyped) have been reported in Missouri as of Week 4. The influenza type for cases reported season-to-date includes 43.1 % A, 56.7 % B and 0.2 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 4. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 4 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 1.16% (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of one influenza-associated death has been reported in Missouri as of Week 4⁵.
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 4.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 4
- Reported Week-specific Rate per 100,000 Population, CDC Week 4
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 2 - 4 (January 10, 2021 – January 30, 2021)*

Influenza Type	Week 2	Week 3	Week 4	2020-2021* Season-to-Date
Influenza A	30	17	16	460
Influenza B	80	32	31	605
Influenza Unknown Or Untyped	0	0	0	2
Total	110	49	47	1,067

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 4 (January 24 – January 30, 2021)*

Age Group	Week 4 Cases	Week 4 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	9	2.40	102	27.25
05-24	7	0.44	258	16.08
25-49	14	0.73	314	16.41
50-64	9	0.73	199	16.10
65+	8	0.84	194	20.32
Total	47	0.77	1,067	17.54

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 4 (January 24 – January 30, 2021)**

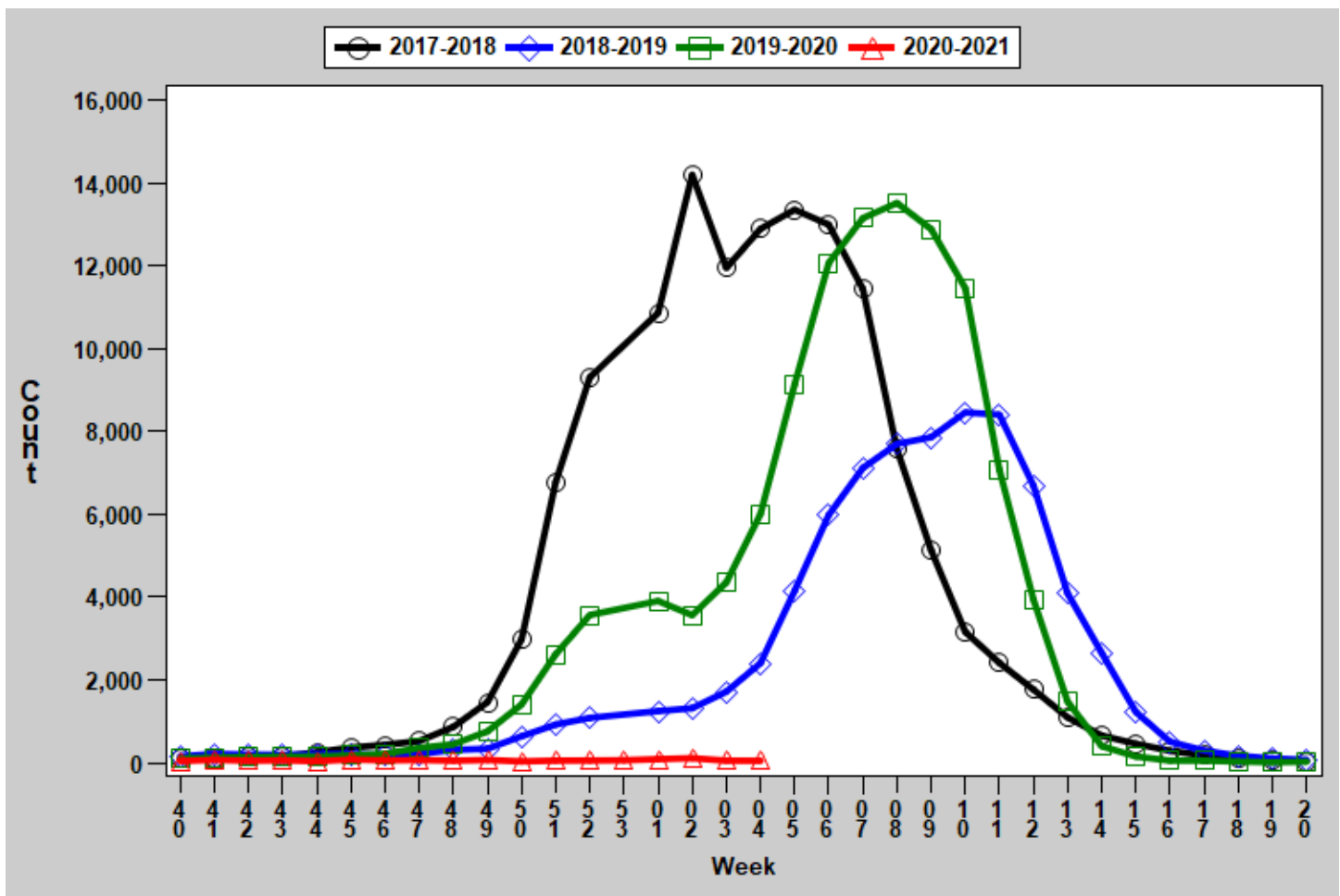
Region	Week 4 Cases	Week 4 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	3	0.44	133	19.65
Eastern	17	0.75	415	18.31
Northwest	5	0.31	115	7.20
Southeast	5	1.06	218	46.22
Southwest	17	1.59	186	17.36
Total	47	0.77	1,067	17.54

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

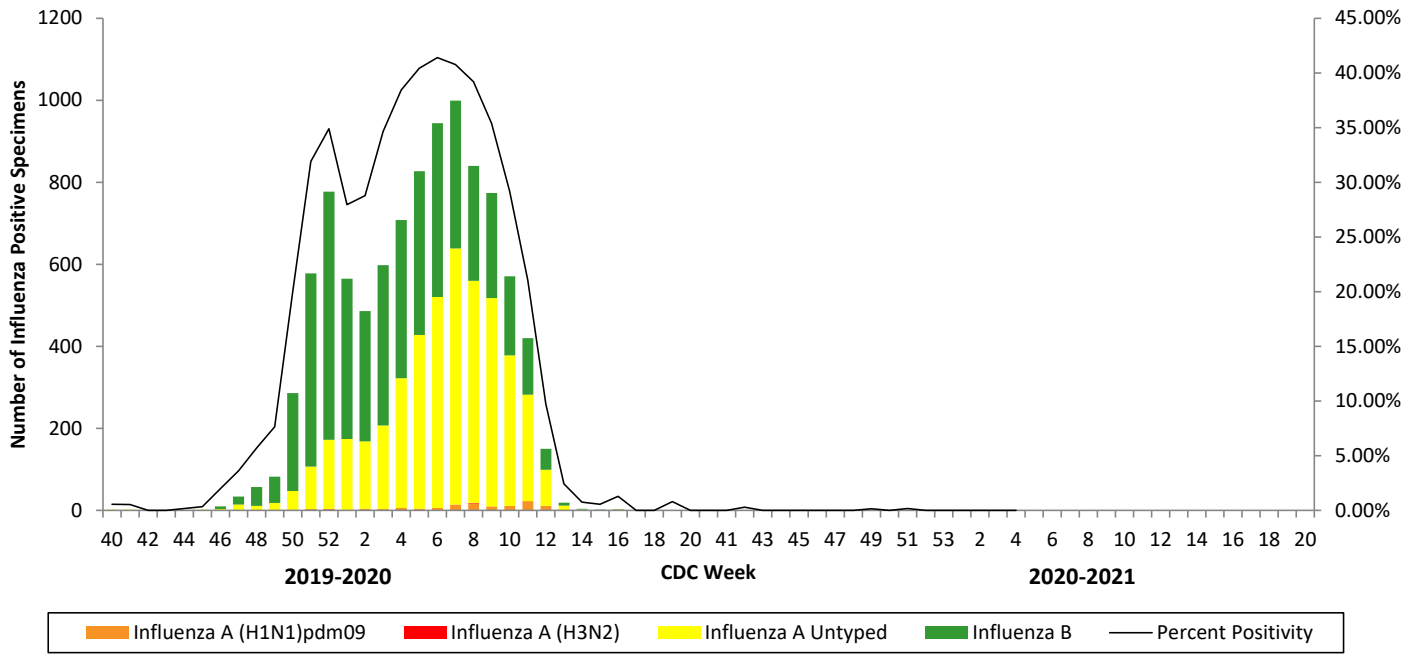
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021*



[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

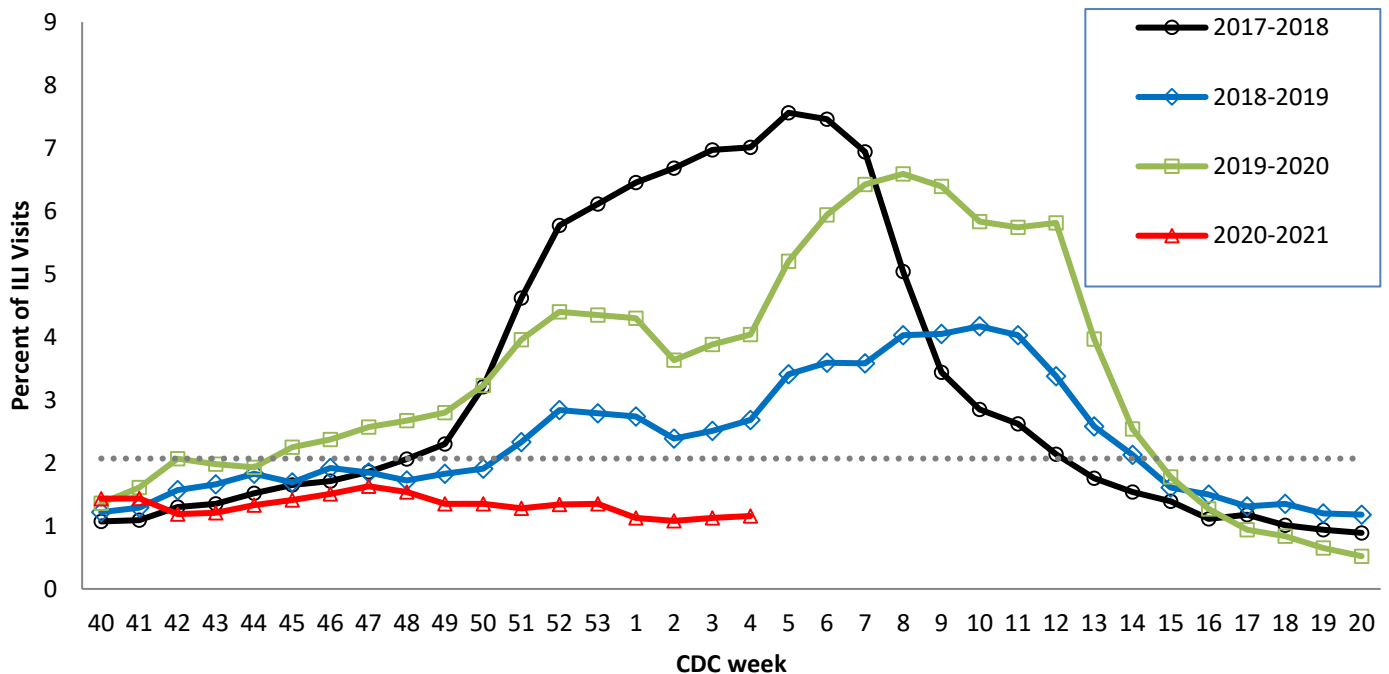
*2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

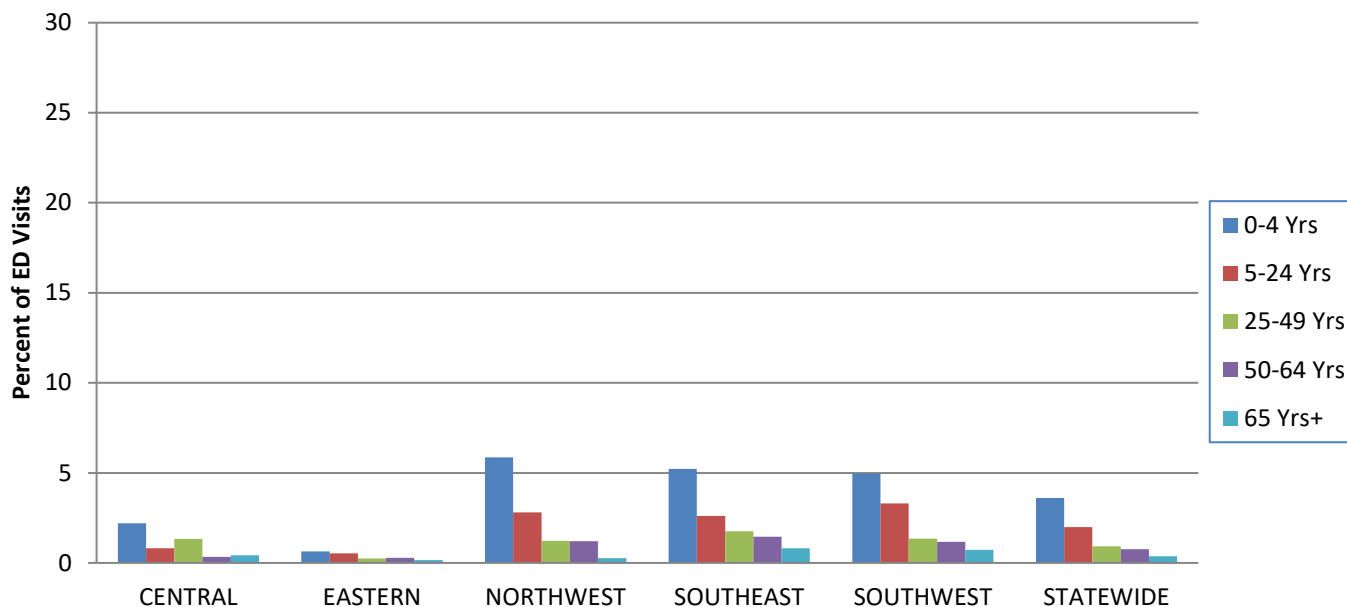


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

*There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

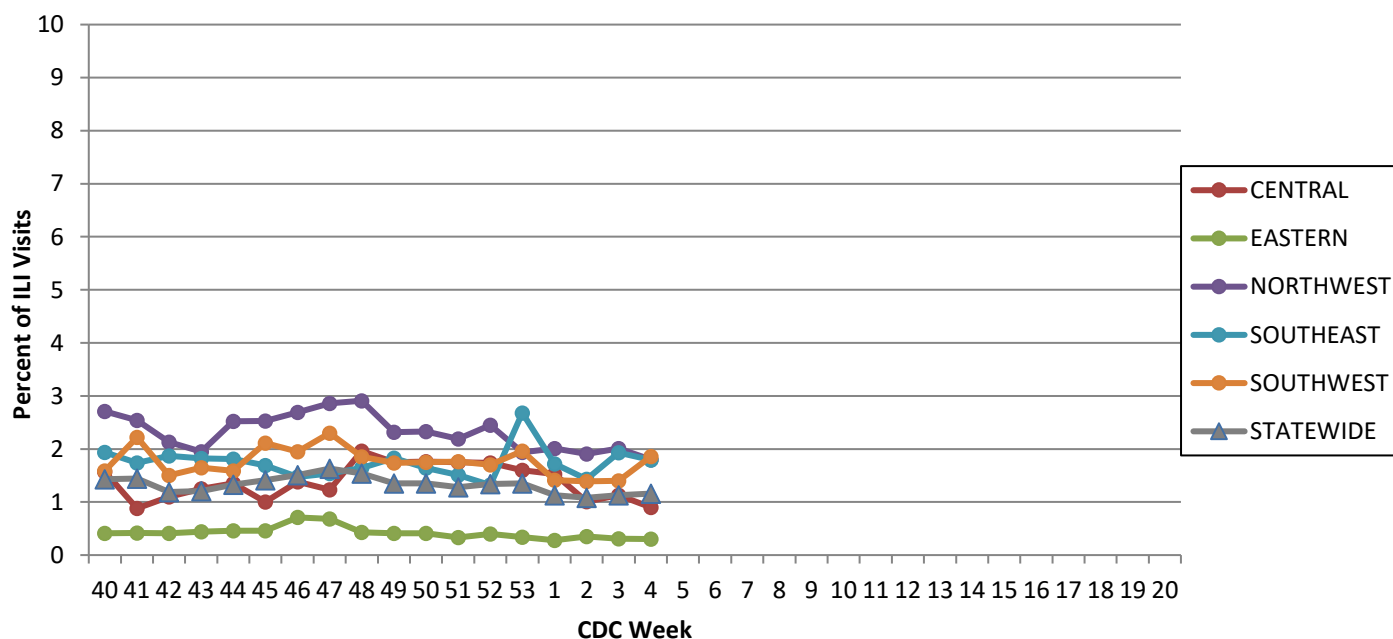
Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 4, 2021*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

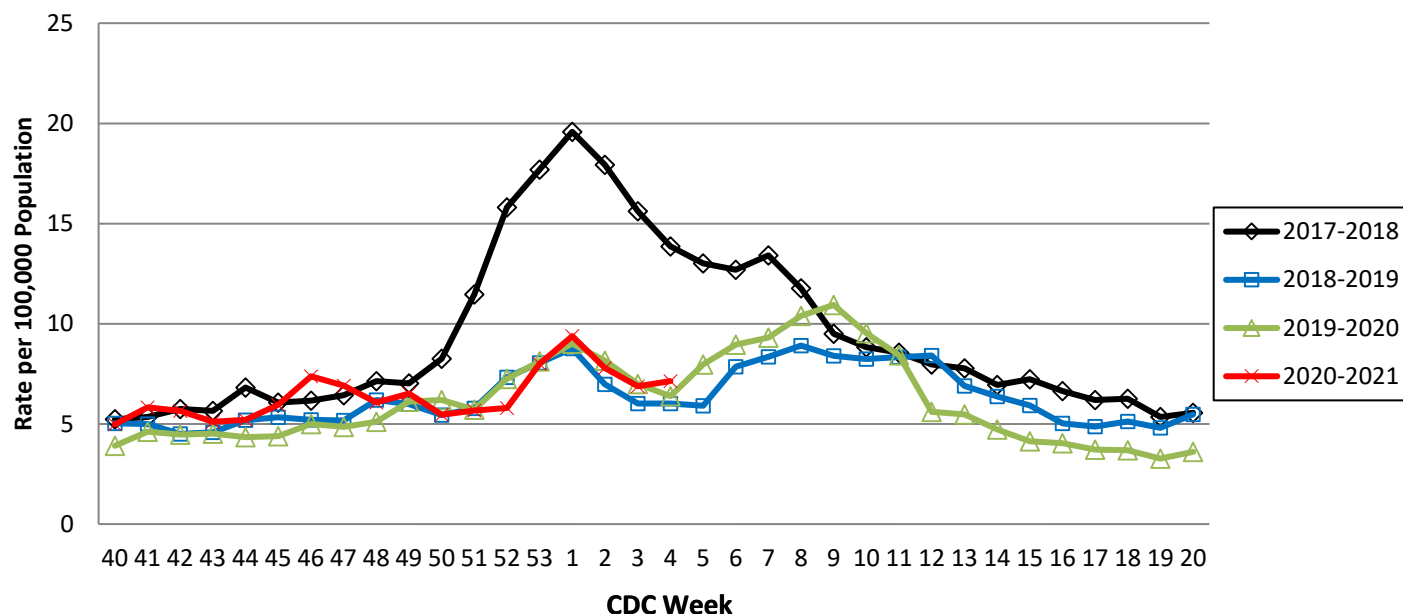
Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons**

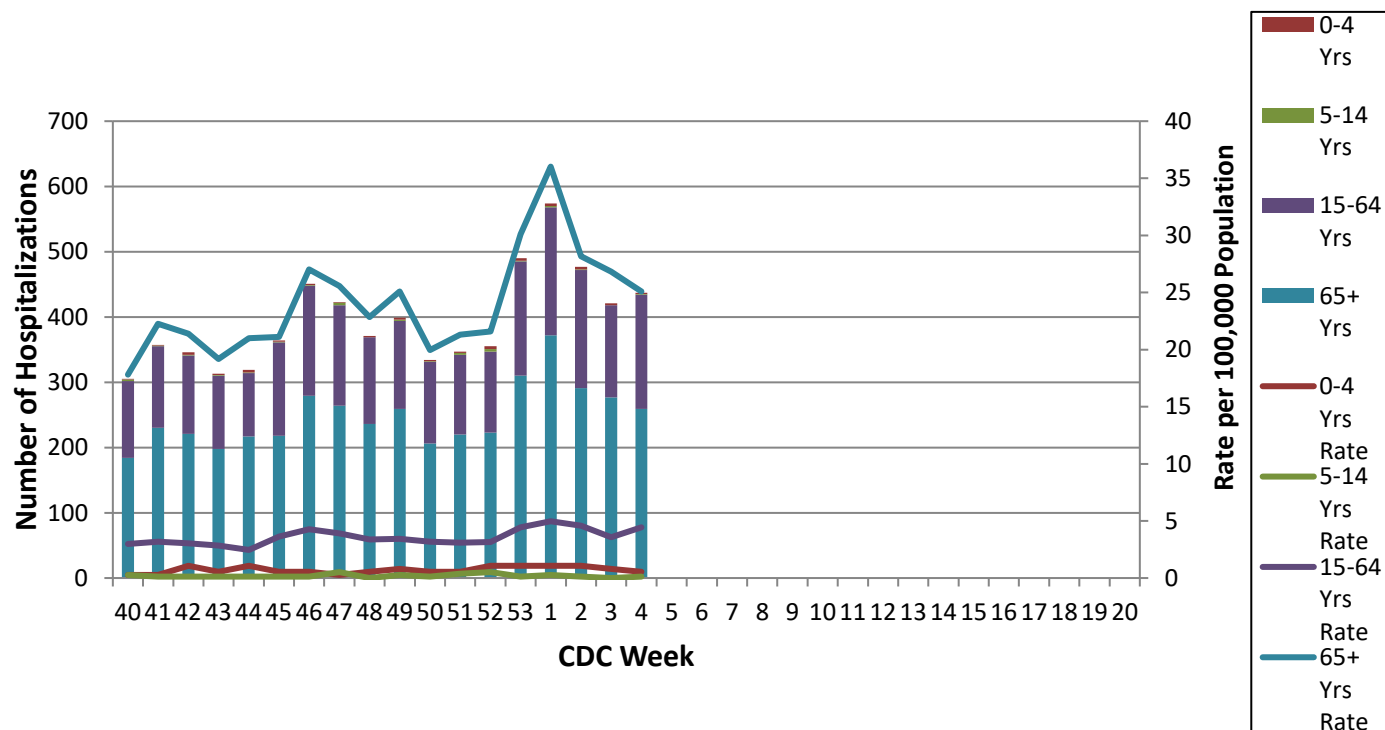


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 4, 2020-2021 Influenza Season**



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.

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Additional Influenza Data Sources:

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World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 5: January 31, 2021 – February 6, 2021

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 5 a total of 52 laboratory-positive³ influenza cases (17 influenza A and 35 influenza B) were reported. A season-to-date total of 1,151 laboratory-positive influenza cases (491 influenza A, 657 influenza B, and 3 untyped) have been reported in Missouri as of Week 5. The influenza type for cases reported season-to-date includes 42.6 % A, 57.1 % B and 0.3 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 5. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 5 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 1.05% (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of one influenza-associated death has been reported in Missouri as of Week 5⁵.
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 5.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIfevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 5
- Reported Week-specific Rate per 100,000 Population, CDC Week 5
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 3 - 5 (January 17, 2021 – February 6, 2021)^{*}

Influenza Type	Week 3	Week 4	Week 5	2020-2021* Season-to-Date
Influenza A	18	25	17	491
Influenza B	33	41	35	657
Influenza Unknown Or Untyped	0	1	0	3
Total	51	67	52	1,151

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*}Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 5 (January 31 – February 6, 2021)^{‡*}

Age Group	Week 5 Cases	Week 5 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	8	2.14	114	30.45
05-24	9	0.56	275	17.14
25-49	16	0.84	342	17.87
50-64	9	0.73	212	17.15
65+	10	1.05	208	21.78
Total	52	0.85	1,151	18.92

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*}Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 5 (January 31 – February 6, 2021)^{}**

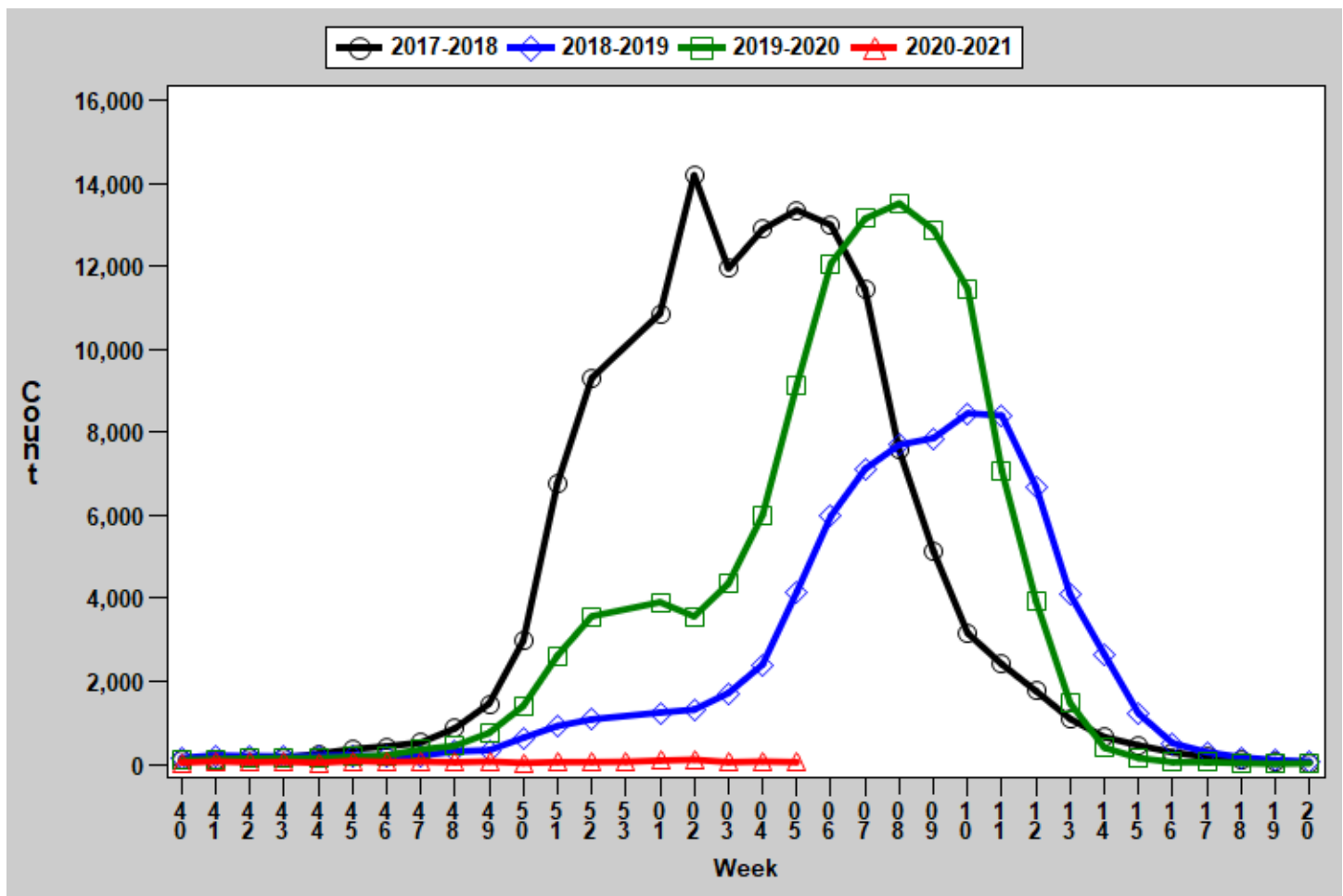
Region	Week 5 Cases	Week 5 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	3	0.44	153	22.60
Eastern	30	1.32	448	19.77
Northwest	4	0.25	119	7.45
Southeast	8	1.70	228	48.34
Southwest	7	0.65	203	18.95
Total	52	0.85	1,151	18.92

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*}Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

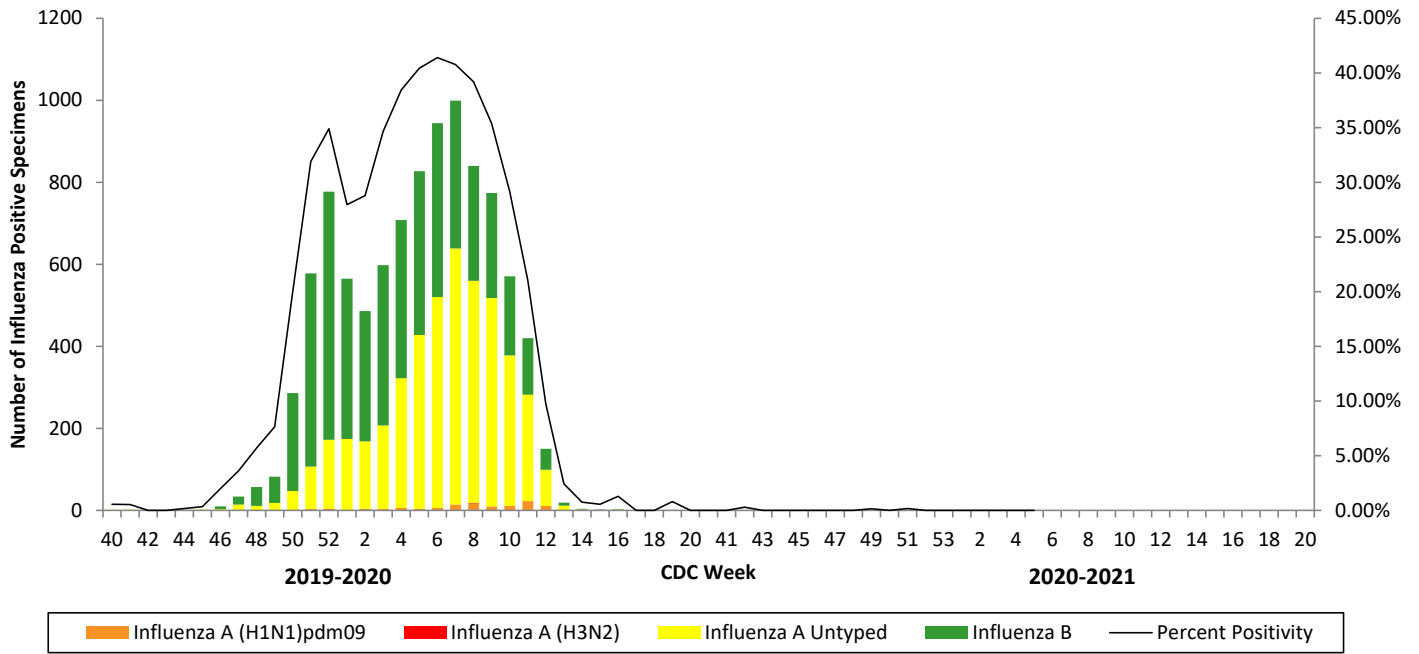
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021^{*}



[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

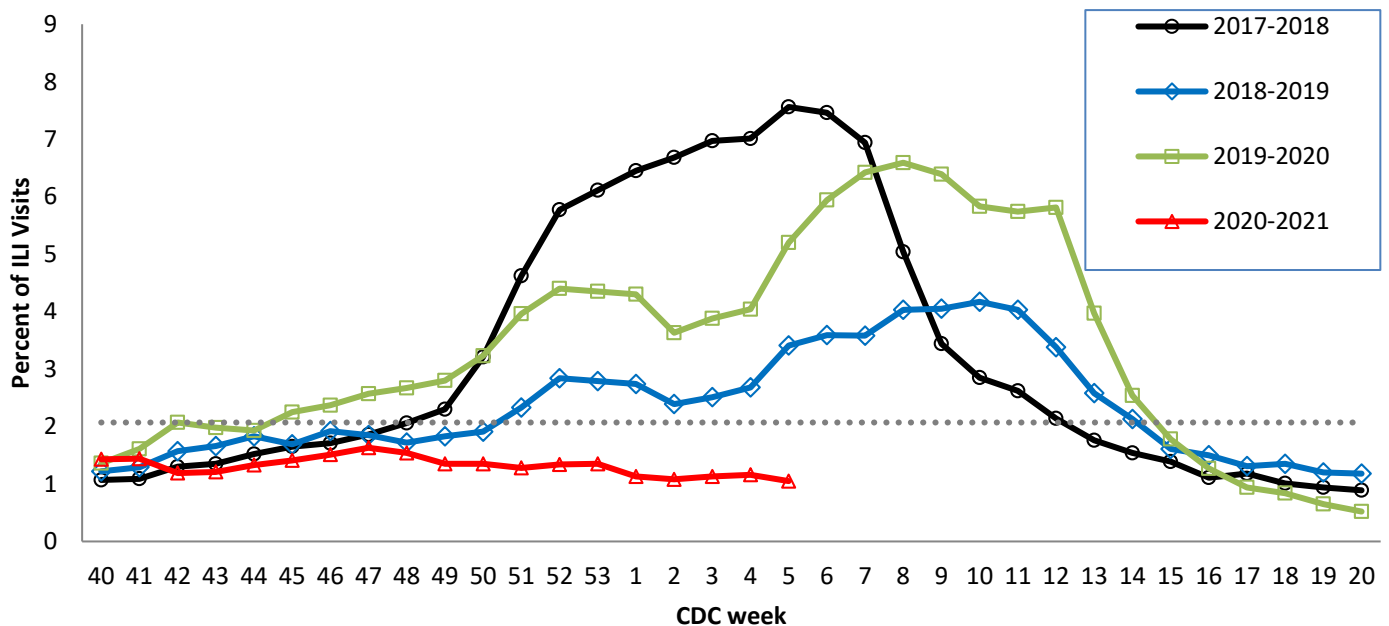
^{*}2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

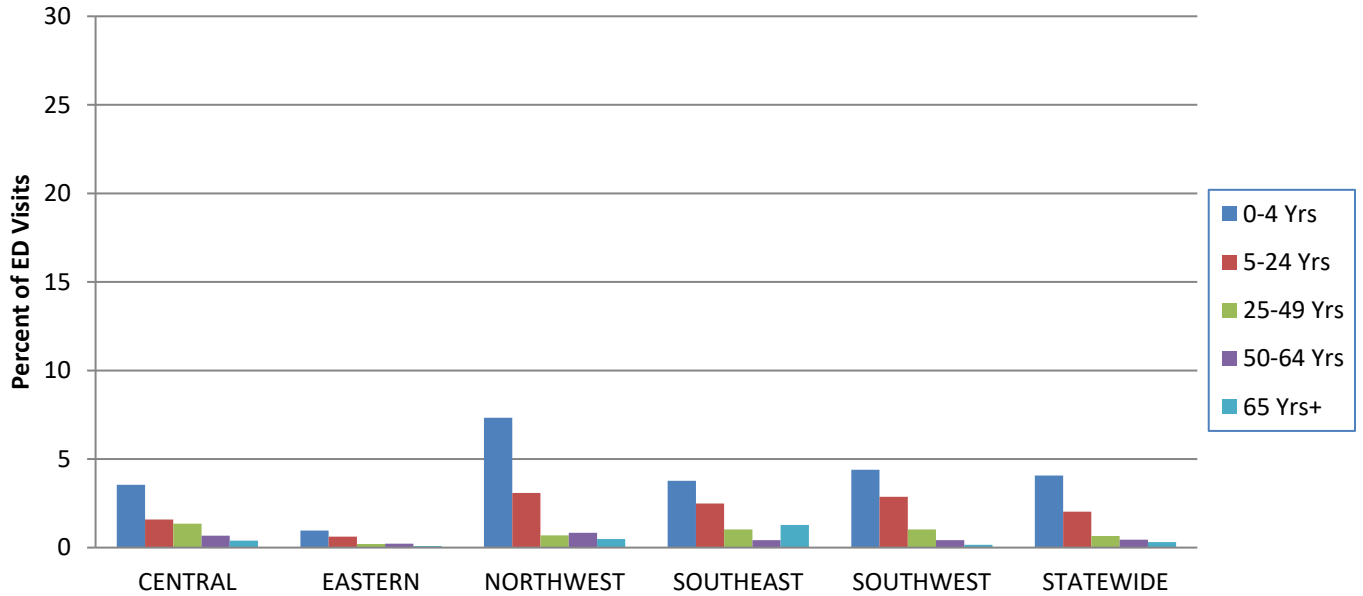


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

*There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

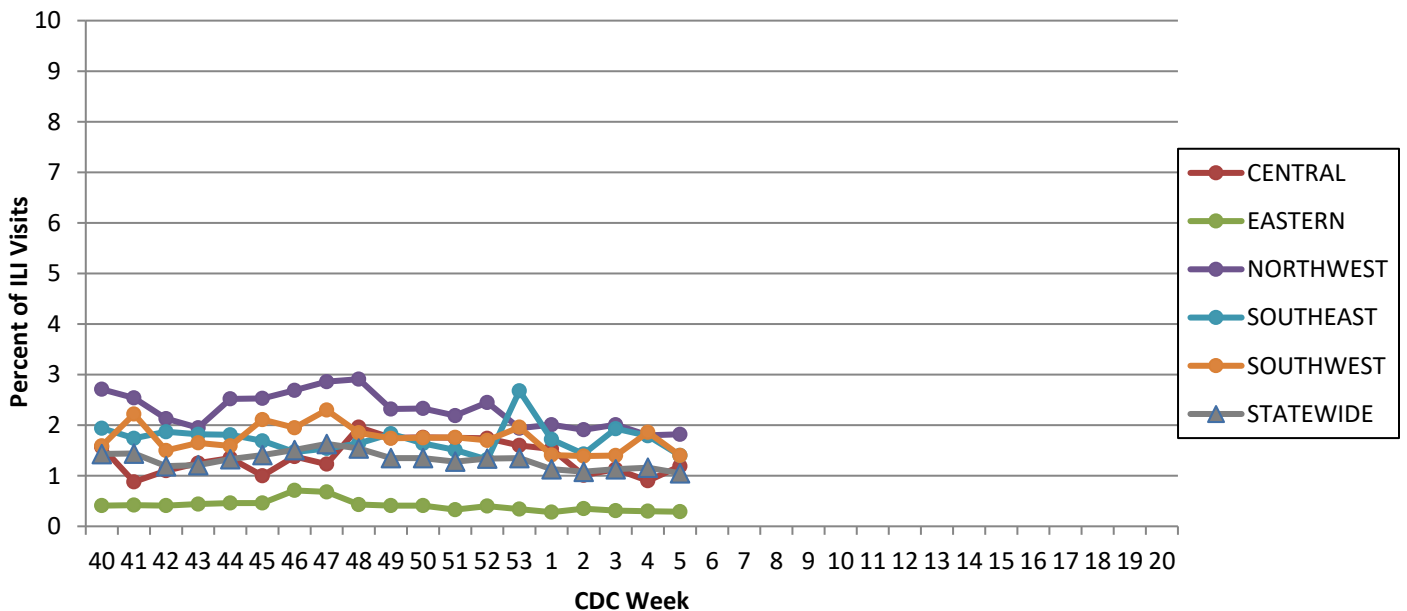
Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 5, 2021*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

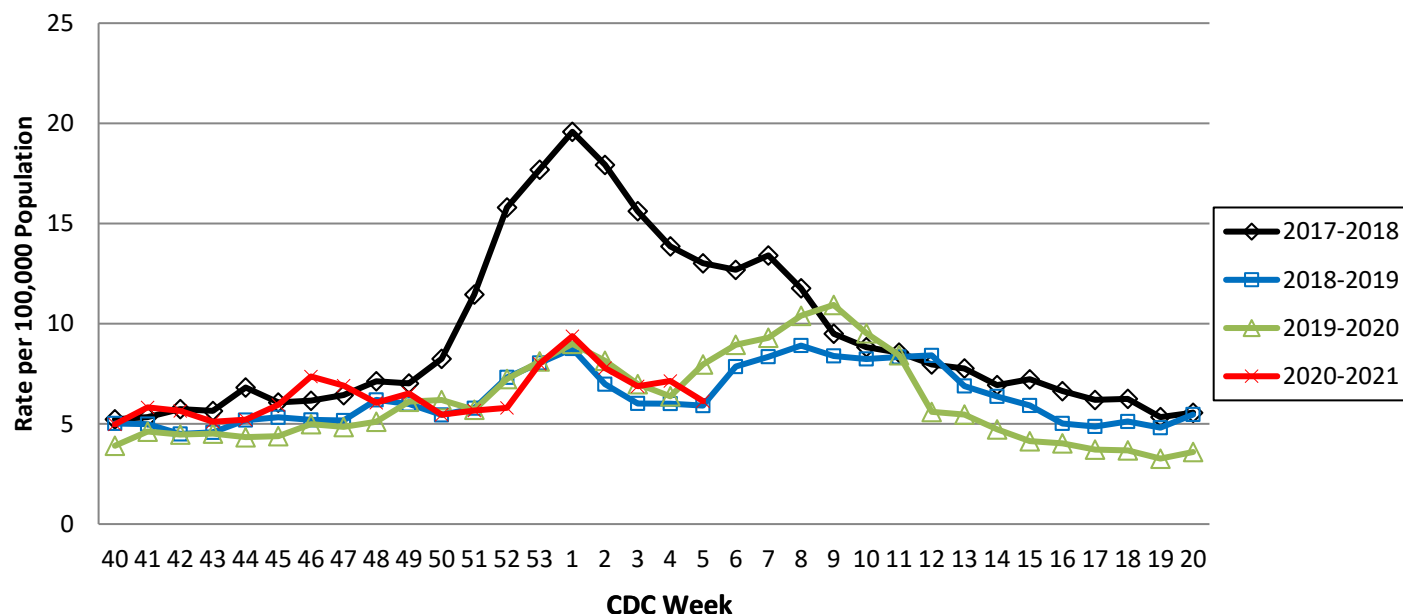
Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons**

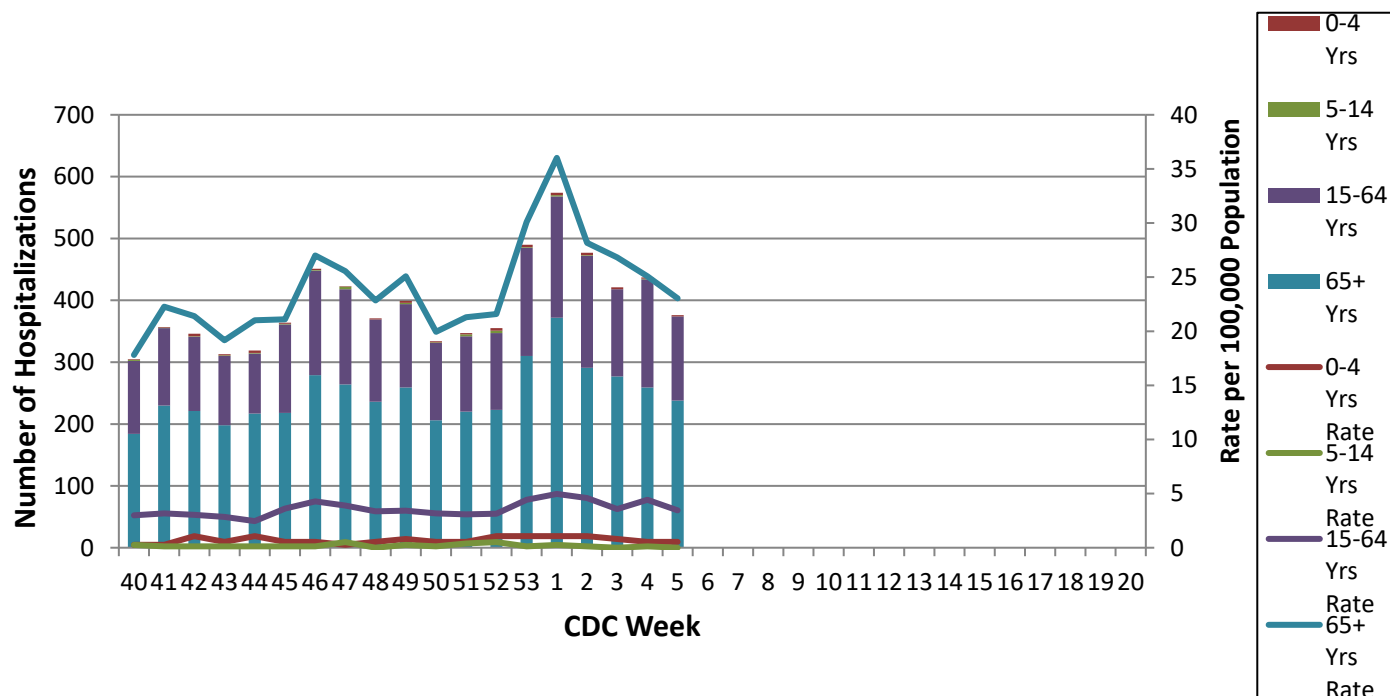


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 5, 2020-2021 Influenza Season**



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):

<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):

<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:

http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 6: February 7, 2021 – February 13, 2021

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 6 a total of 16 laboratory-positive³ influenza cases (5 influenza A and 11 influenza B) were reported. A season-to-date total of 1,281 laboratory-positive influenza cases (557 influenza A, 705 influenza B, and 19 untyped) have been reported in Missouri as of Week 5. The influenza type for cases reported season-to-date includes 43.5 % A, 55.0 % B and 1.5 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 6. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 6 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 0.96% (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of one influenza-associated death has been reported in Missouri as of Week 6⁵.
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 6.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 6
- Reported Week-specific Rate per 100,000 Population, CDC Week 6
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 4 - 6 (January 24, 2021 – February 13, 2021)^{*}

Influenza Type	Week 4	Week 5	Week 6	2020-2021* Season-to-Date
Influenza A	32	20	5	557
Influenza B	48	43	11	705
Influenza Unknown Or Untyped	0	0	0	19
Total	80	63	16	1281

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*}Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 6 (February 7 – February 13, 2021)^{*,†}

Age Group	Week 6 Cases	Week 6 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	2	0.53	125	33.39
05-24	5	0.31	312	19.45
25-49	5	0.26	385	20.12
50-64	0	0.00	234	18.93
65+	4	0.42	225	23.56
Total	16	0.26	1,281	21.06

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*}Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 6 (February 7 – February 13, 2021)^{*,‡}

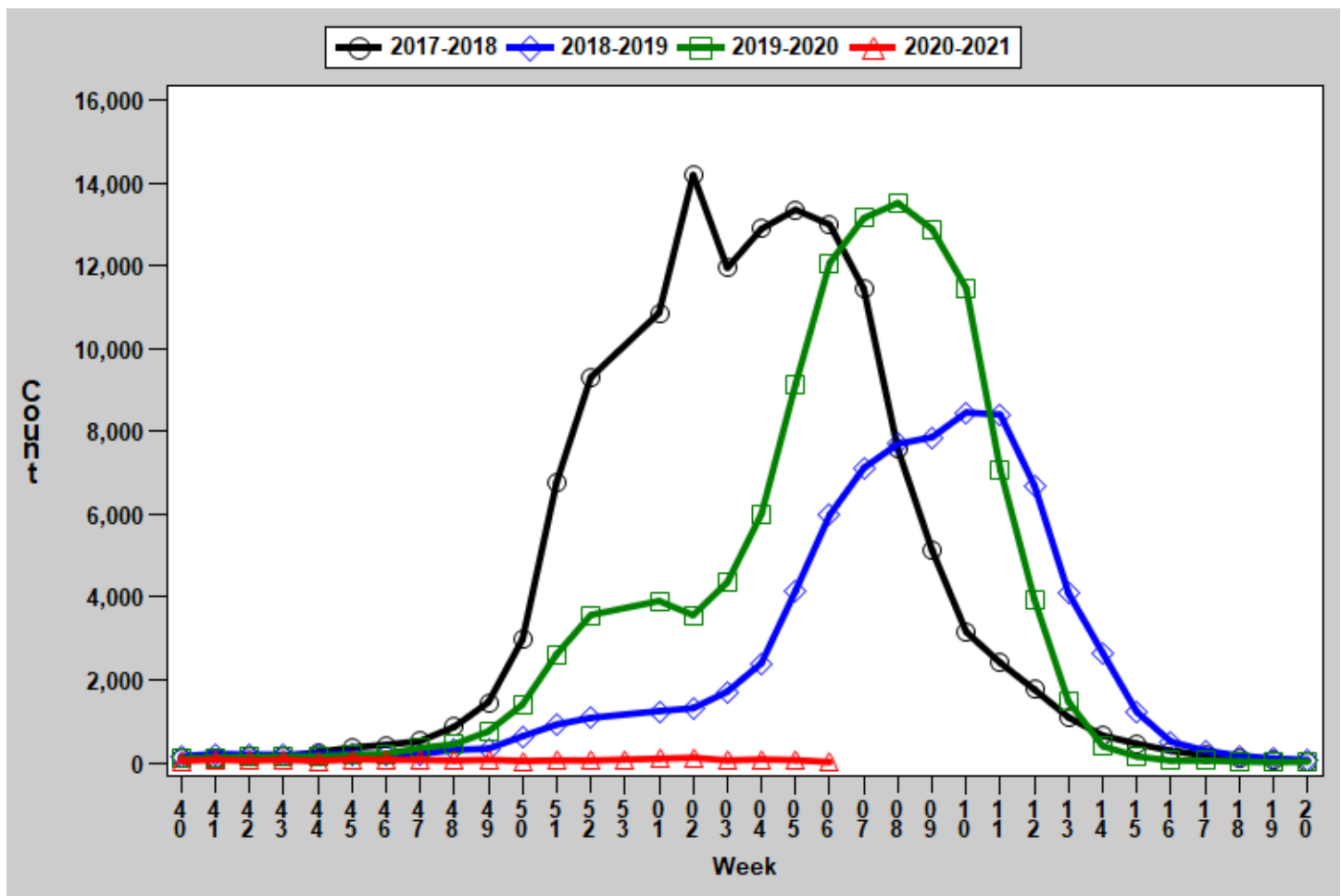
Region	Week 6 Cases	Week 6 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	1	0.15	159	23.49
Eastern	10	0.44	543	23.96
Northwest	1	0.06	136	8.51
Southeast	2	0.42	230	48.76
Southwest	2	0.19	213	19.88
Total	16	0.26	1,281	21.06

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

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[‡]Incidence Rate per 100,000 population

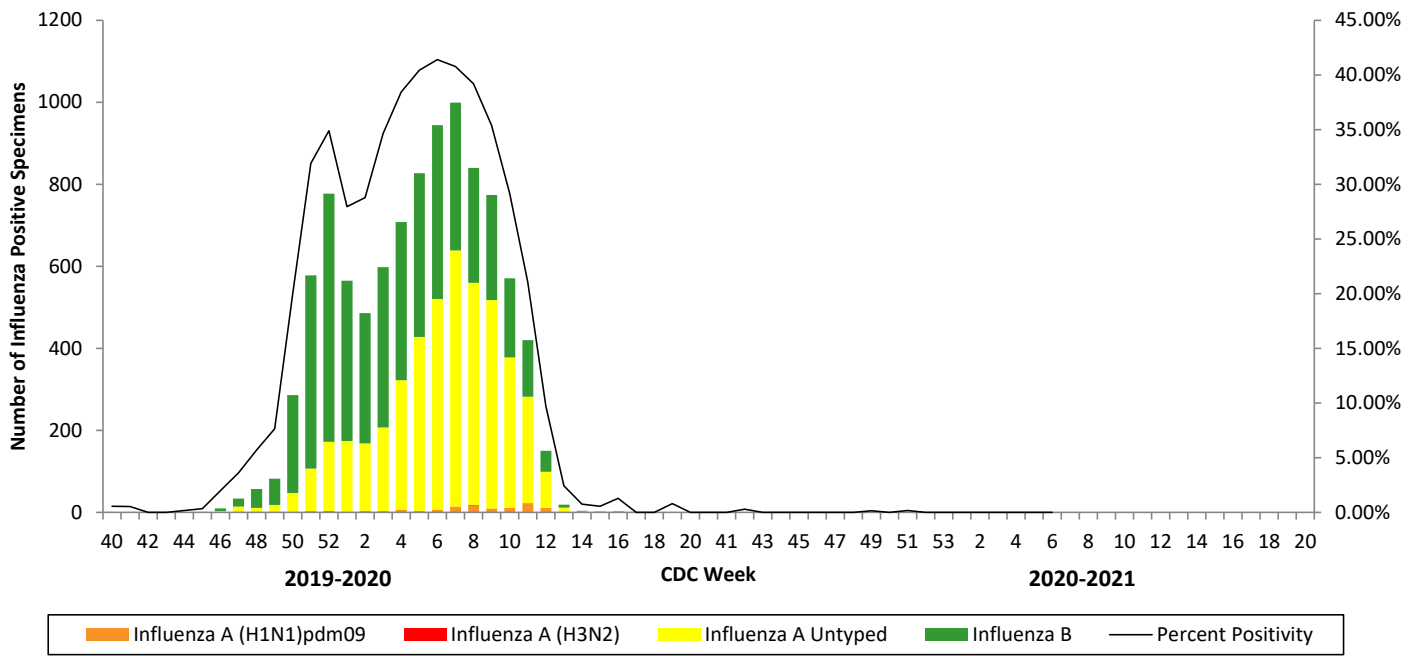
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021^{*}



[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

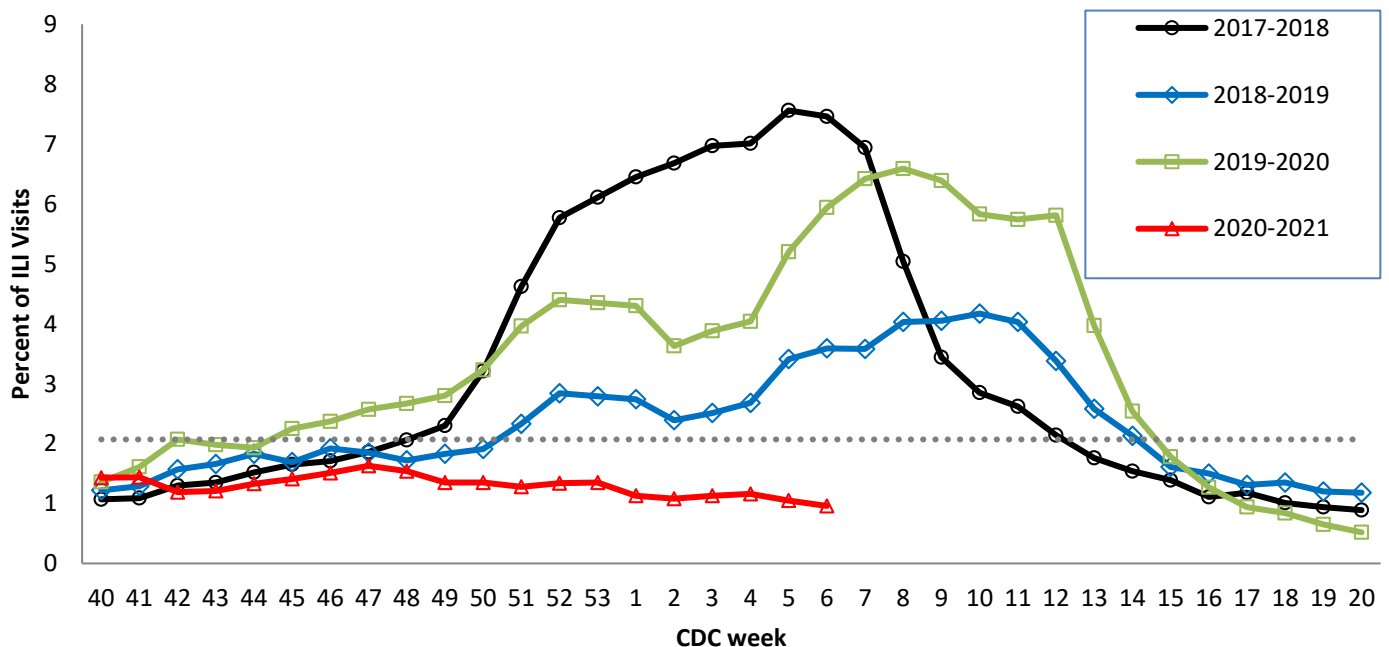
^{*}2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

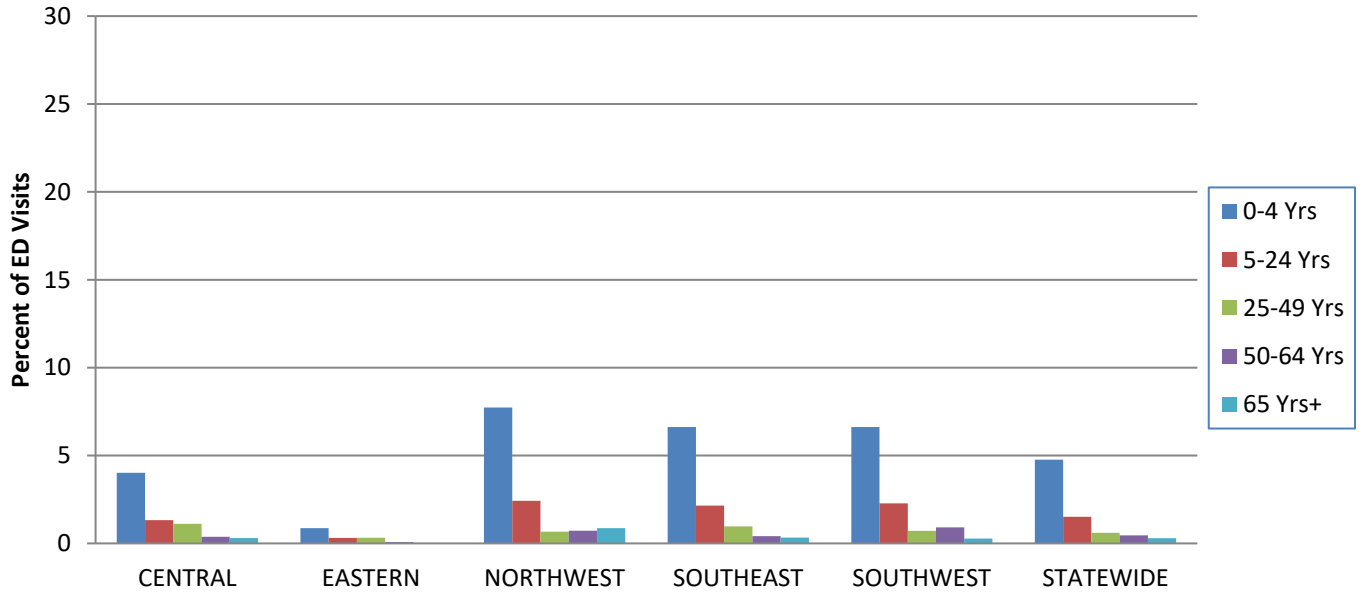


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

*There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

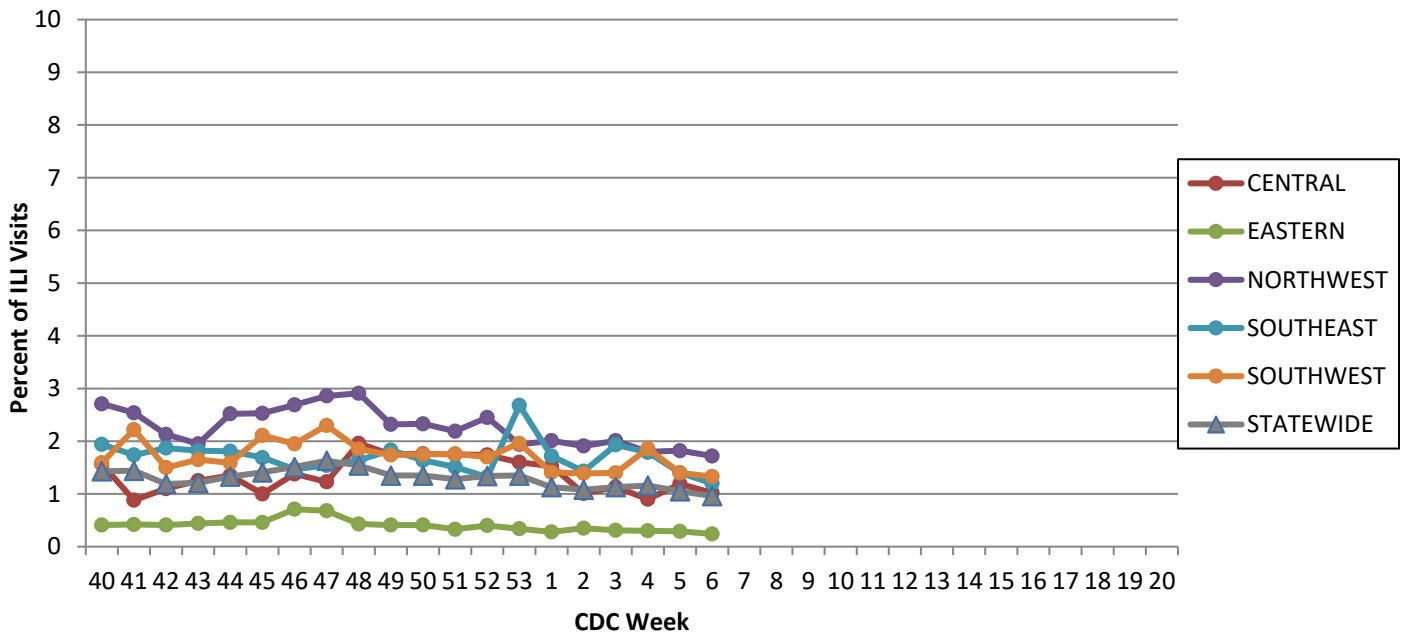
Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 6, 2021*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

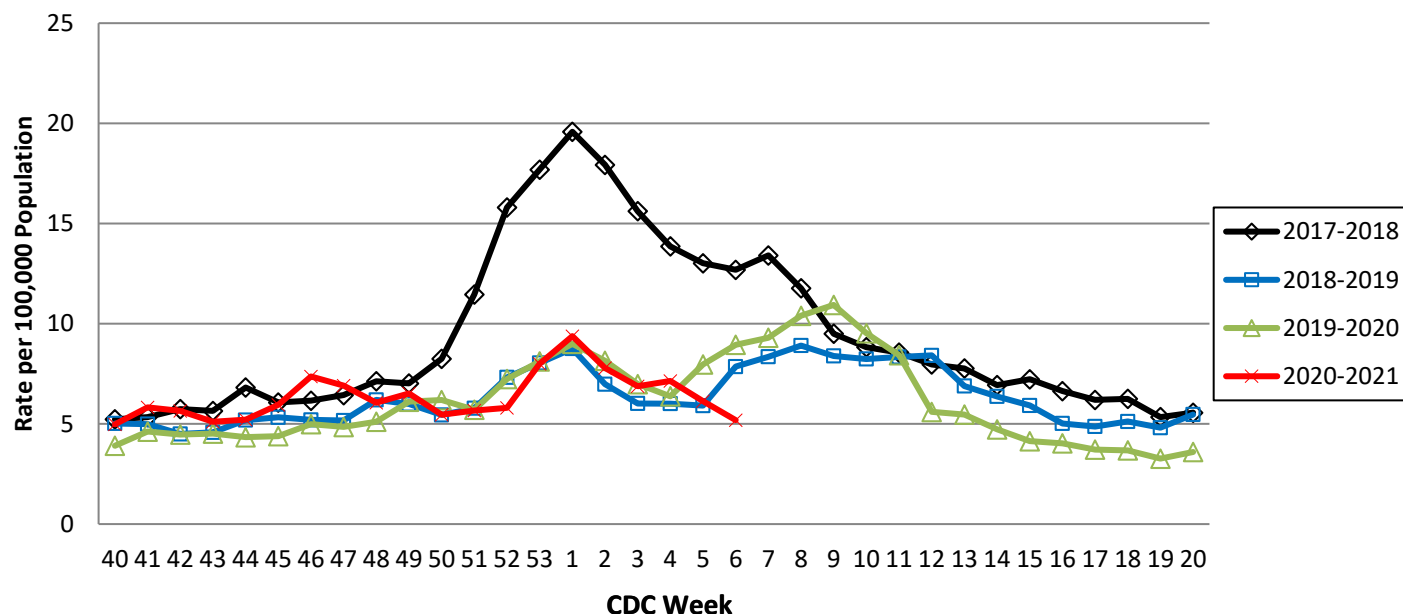
Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons**

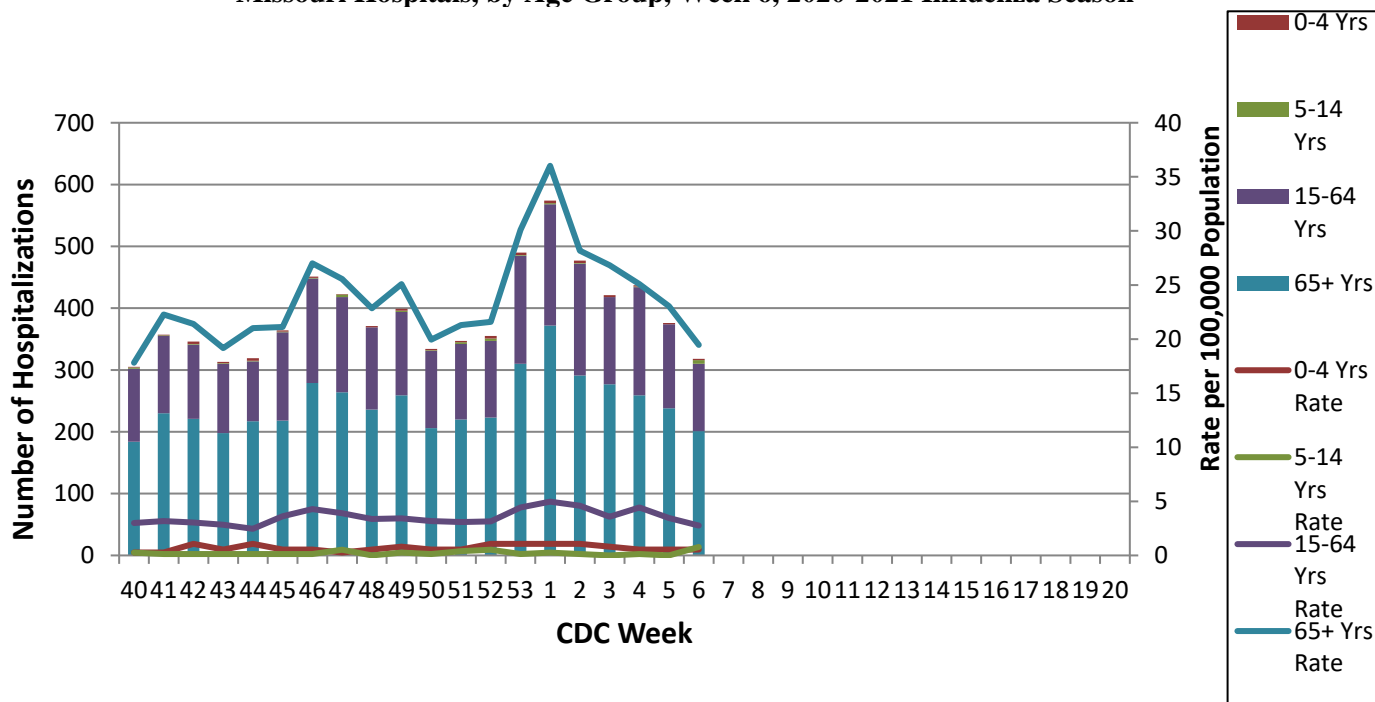


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 6, 2020-2021 Influenza Season**



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):
<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):
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World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 7: February 14, 2021 – February 20, 2021

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 7 a total of 24 laboratory-positive³ influenza cases (8 influenza A and 16 influenza B) were reported. A season-to-date total of 1,347 laboratory-positive influenza cases (594 influenza A, 734 influenza B, and 19 untyped) have been reported in Missouri as of Week 7. The influenza type for cases reported season-to-date includes 44.1 % A, 54.5 % B and 1.4 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 7. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 6 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 0.67% (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of one influenza-associated death has been reported in Missouri as of Week 7⁵.
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 7.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 7
- Reported Week-specific Rate per 100,000 Population, CDC Week 7
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 5 - 7 February 1, 2021 – February 20, 2021)*

Influenza Type	Week 5	Week 6	Week 7	2020-2021* Season-to-Date
Influenza A	26	20	8	594
Influenza B	43	22	16	734
Influenza Unknown Or Untyped	0	0	0	19
Total	69	24	24	1,347

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 7 (February 14– February 20, 2021)*

Age Group	Week 7 Cases	Week 7 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	3	0.80	134	35.79
05-24	7	0.44	334	20.82
25-49	9	0.47	399	20.85
50-64	2	0.16	248	20.06
65+	3	0.31	232	24.30
Total	24	0.36	1,347	22.14

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 7 (February 14 – February 20, 2021)^{}**

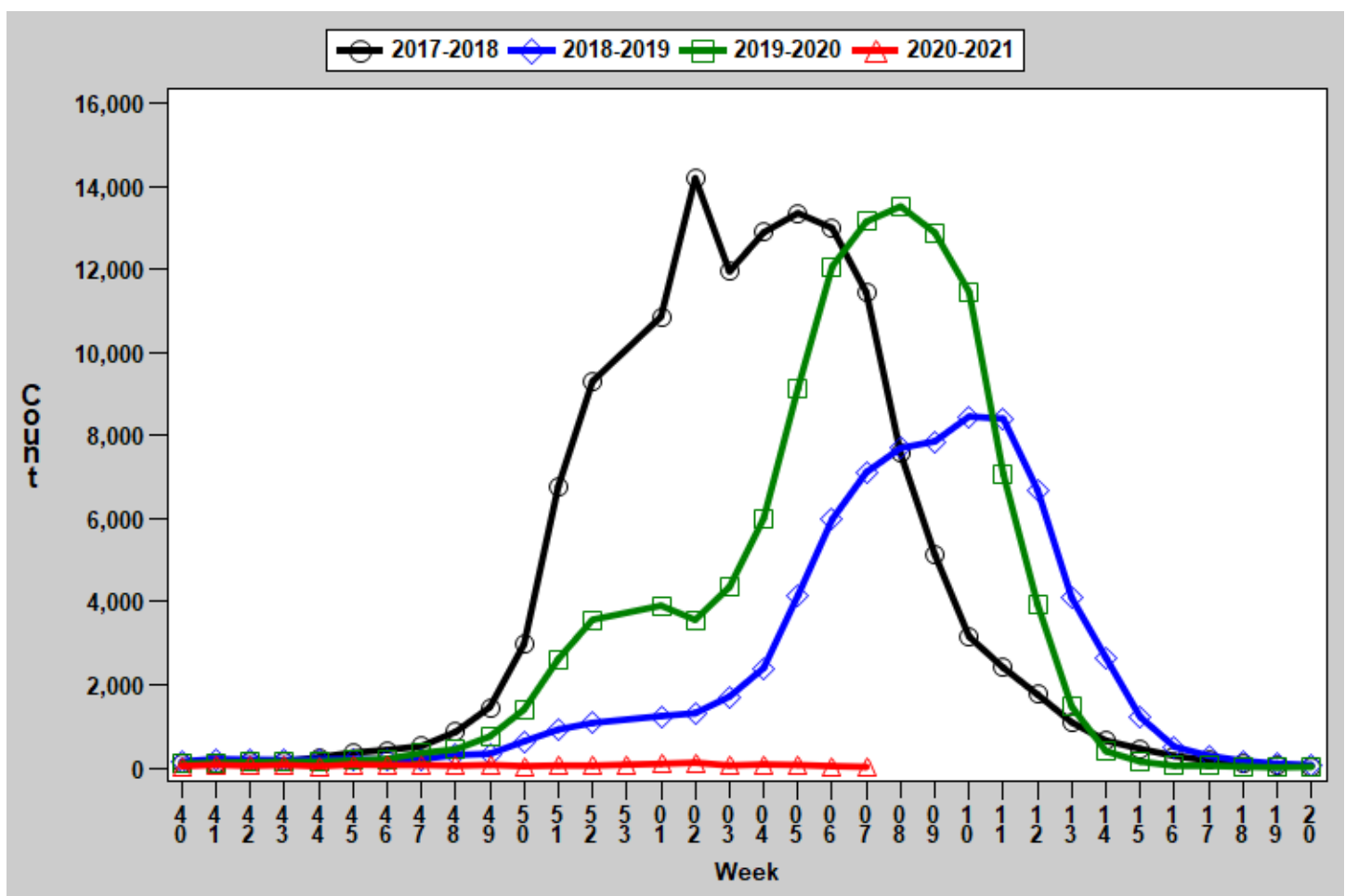
Region	Week 7 Cases	Week 7 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	6	0.89	172	25.41
Eastern	3	0.13	559	24.67
Northwest	8	0.50	153	9.58
Southeast	4	0.85	239	50.67
Southwest	3	0.28	224	20.91
Total	24	0.39	1,347	22.14

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{**} Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

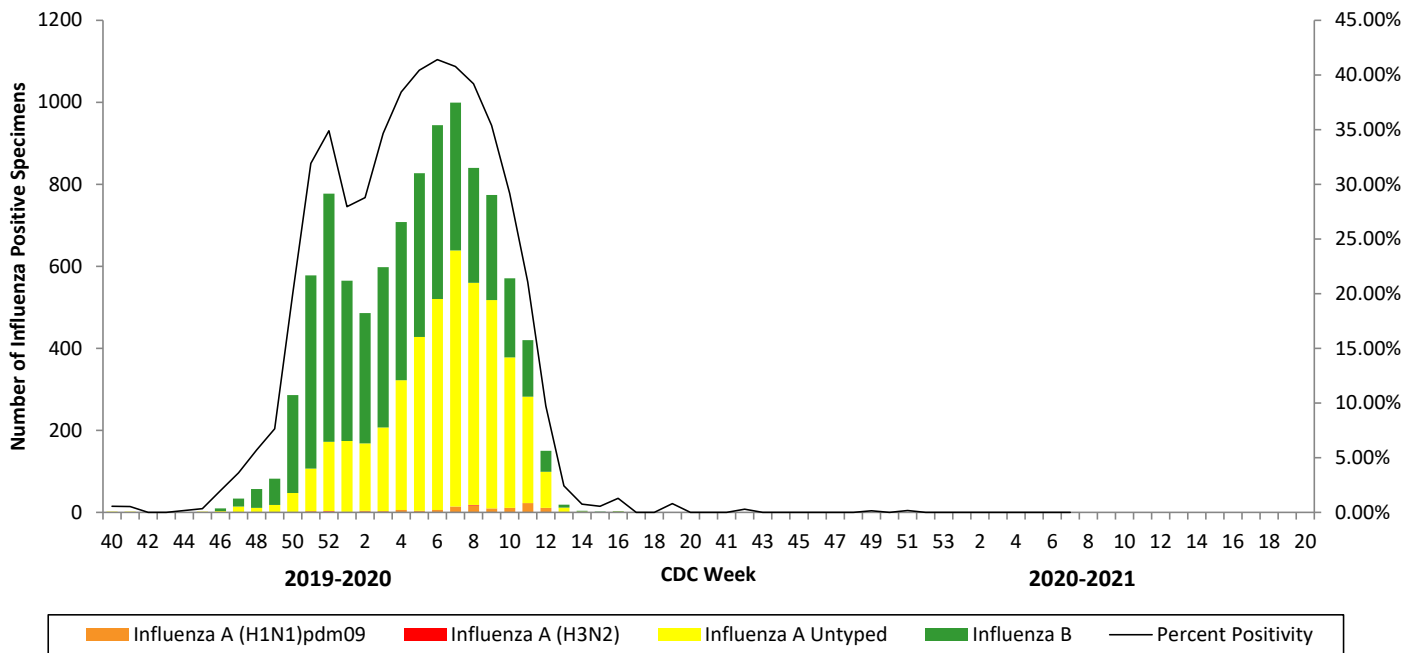
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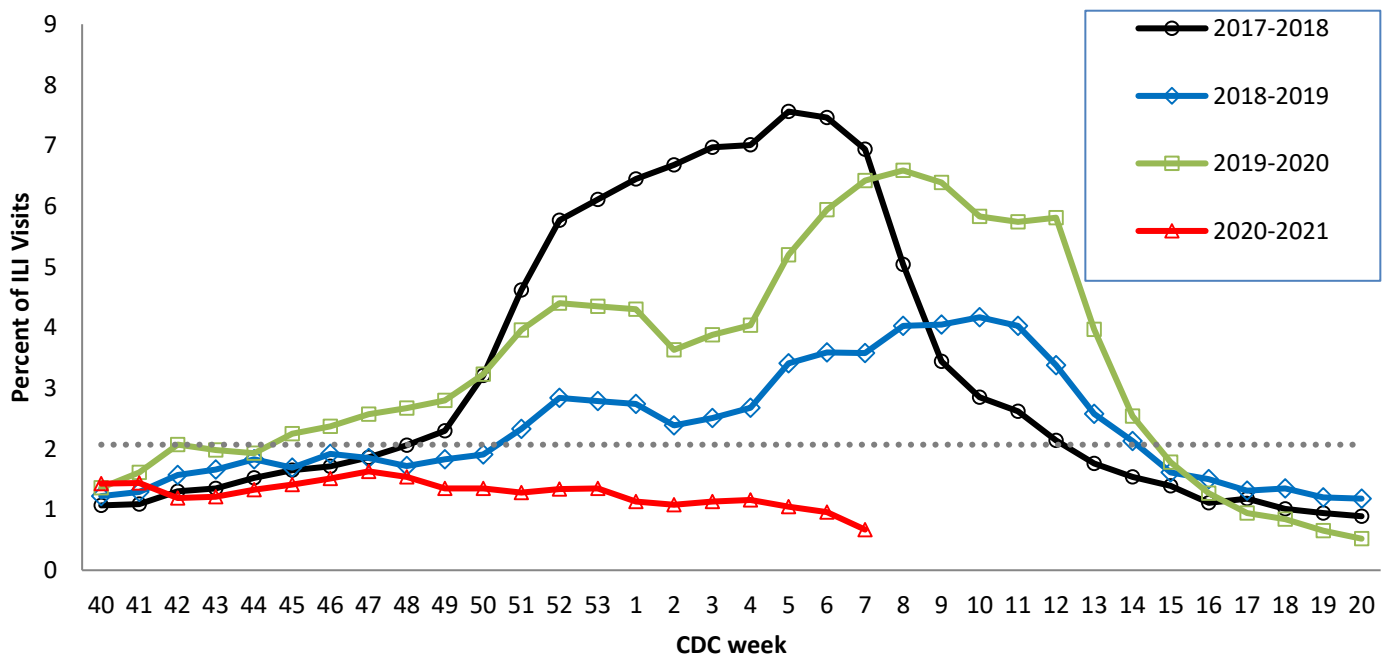
^{*} 2020-2021 season-to-date through the week ending May 22, 2021 (Week 20). Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

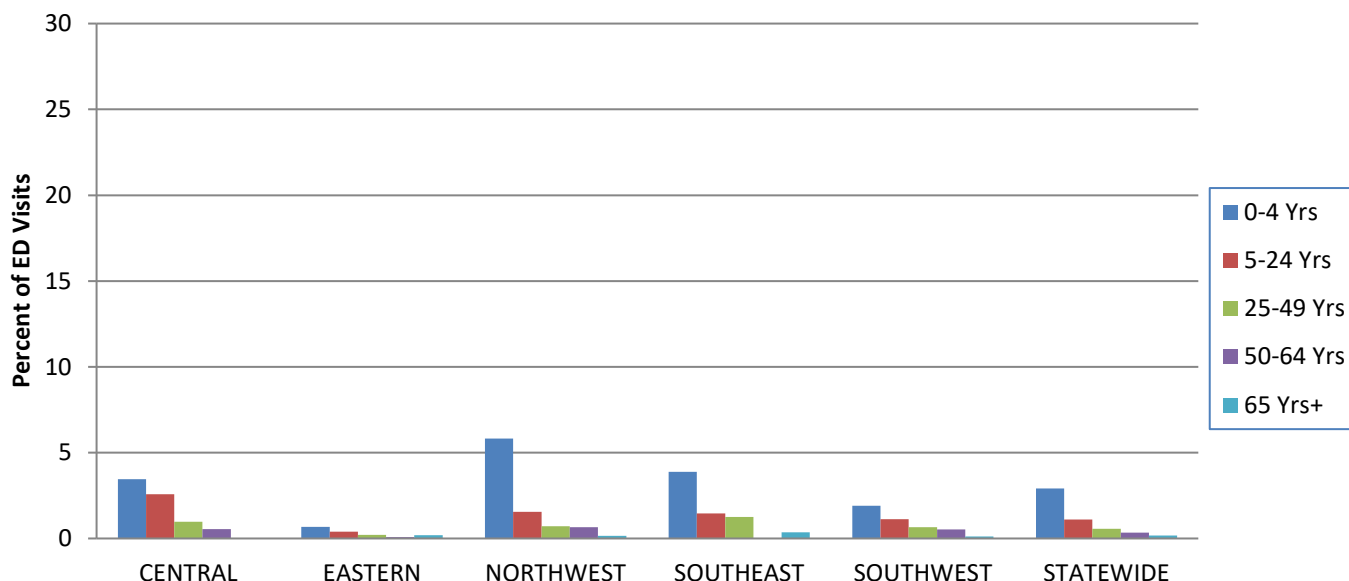


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

*There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

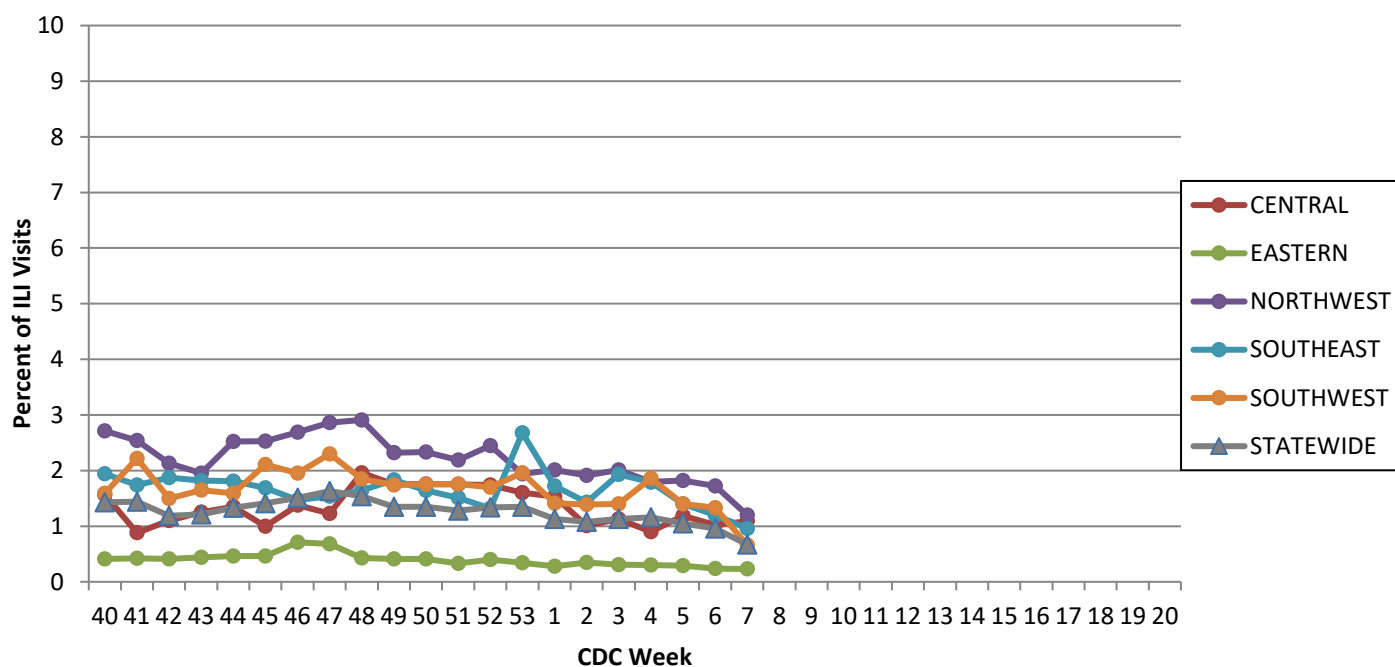
Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 6, 2021*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

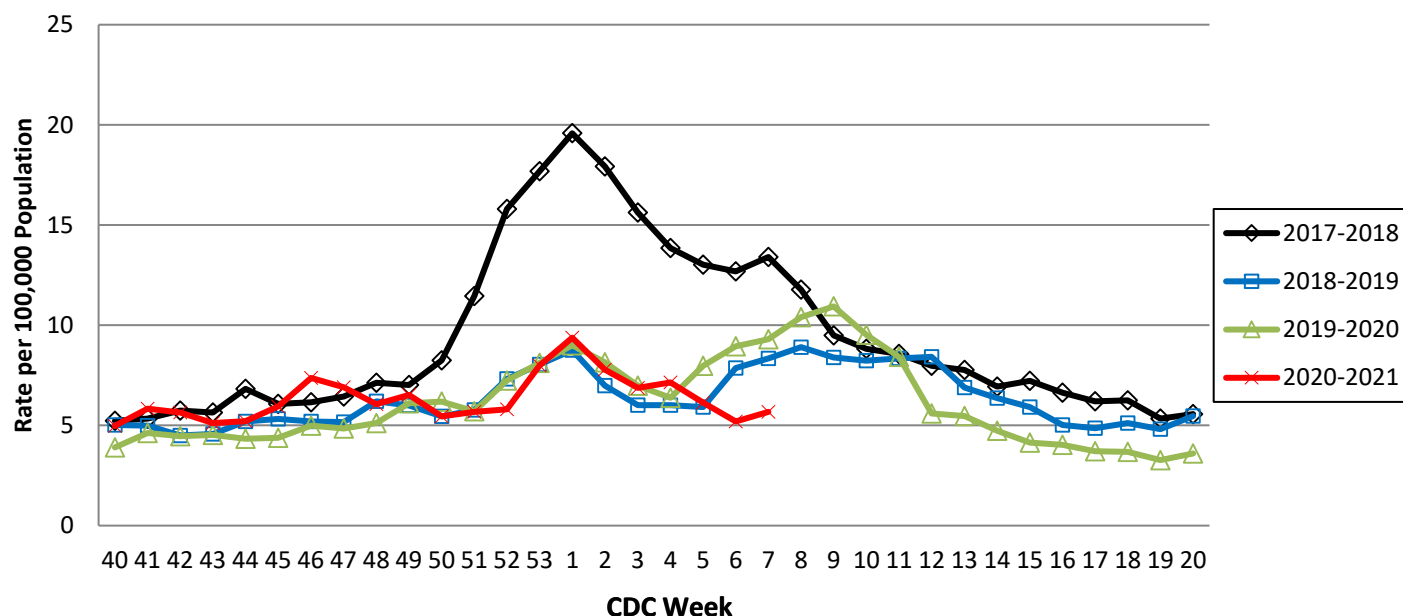
Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

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Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons**

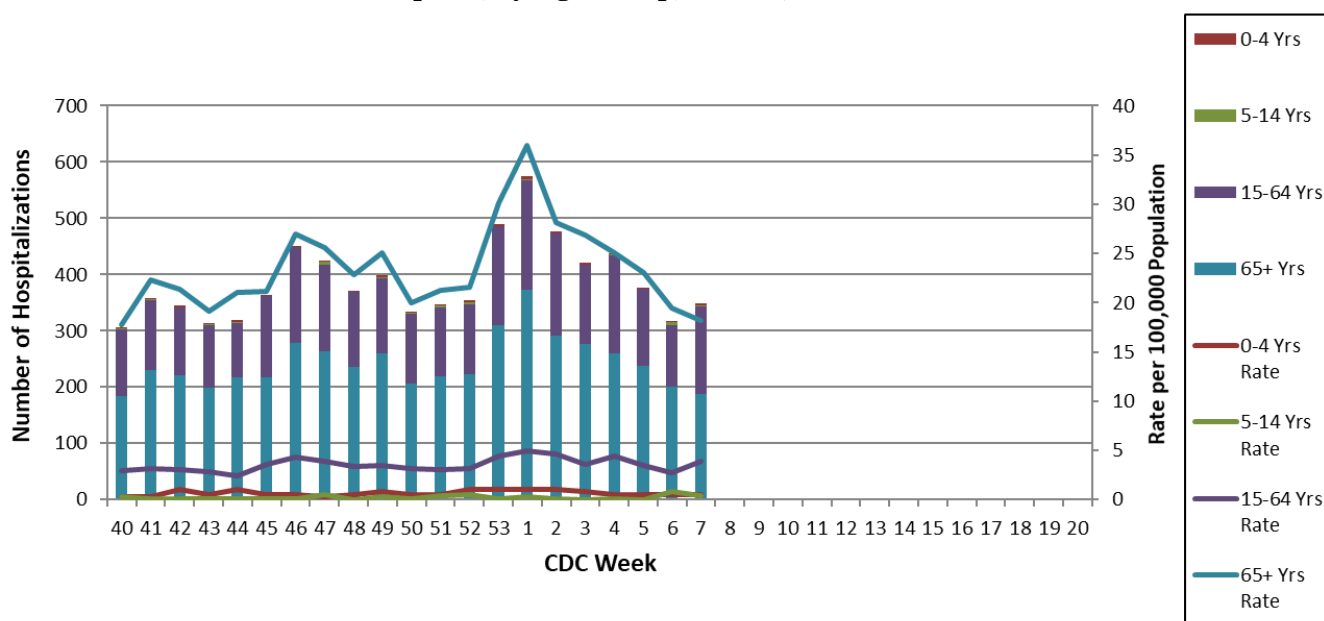


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

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**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 7, 2020-2021 Influenza Season**



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Additional Influenza Data Sources:

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http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 8: February 21, 2021 – February 27, 2021

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 8 a total of 29 laboratory-positive³ influenza cases (14 influenza A and 15 influenza B) were reported. A season-to-date total of 1,417 laboratory-positive influenza cases (621 influenza A, 777 influenza B, and 19 untyped) have been reported in Missouri as of Week 8. The influenza type for cases reported season-to-date includes 43.8 % A, 54.8 % B and 1.4 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 8. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 6 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 0.72 % (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of one influenza-associated death has been reported in Missouri as of Week 8⁵.
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 8.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 8
- Reported Week-specific Rate per 100,000 Population, CDC Week 8
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 6 – 8, February 7, 2021 – February 27, 2021)*

Influenza Type	Week 6	Week 7	Week 8	2020-2021* Season-to-Date
Influenza A	25	12	14	621
Influenza B	26	30	15	777
Influenza Unknown Or Untyped	0	0	0	19
Total	51	42	29	1,417

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 8 (February 21– February 27, 2021)*

Age Group	Week 8 Cases	Week 8 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	1	0.27	140	37.40
05-24	4	0.25	350	21.81
25-49	11	0.57	422	22.05
50-64	5	0.40	258	20.87
65+	8	0.84	247	25.87
Total	29	0.48	1,417	23.29

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 8 (February 21 – February 27, 2021)**

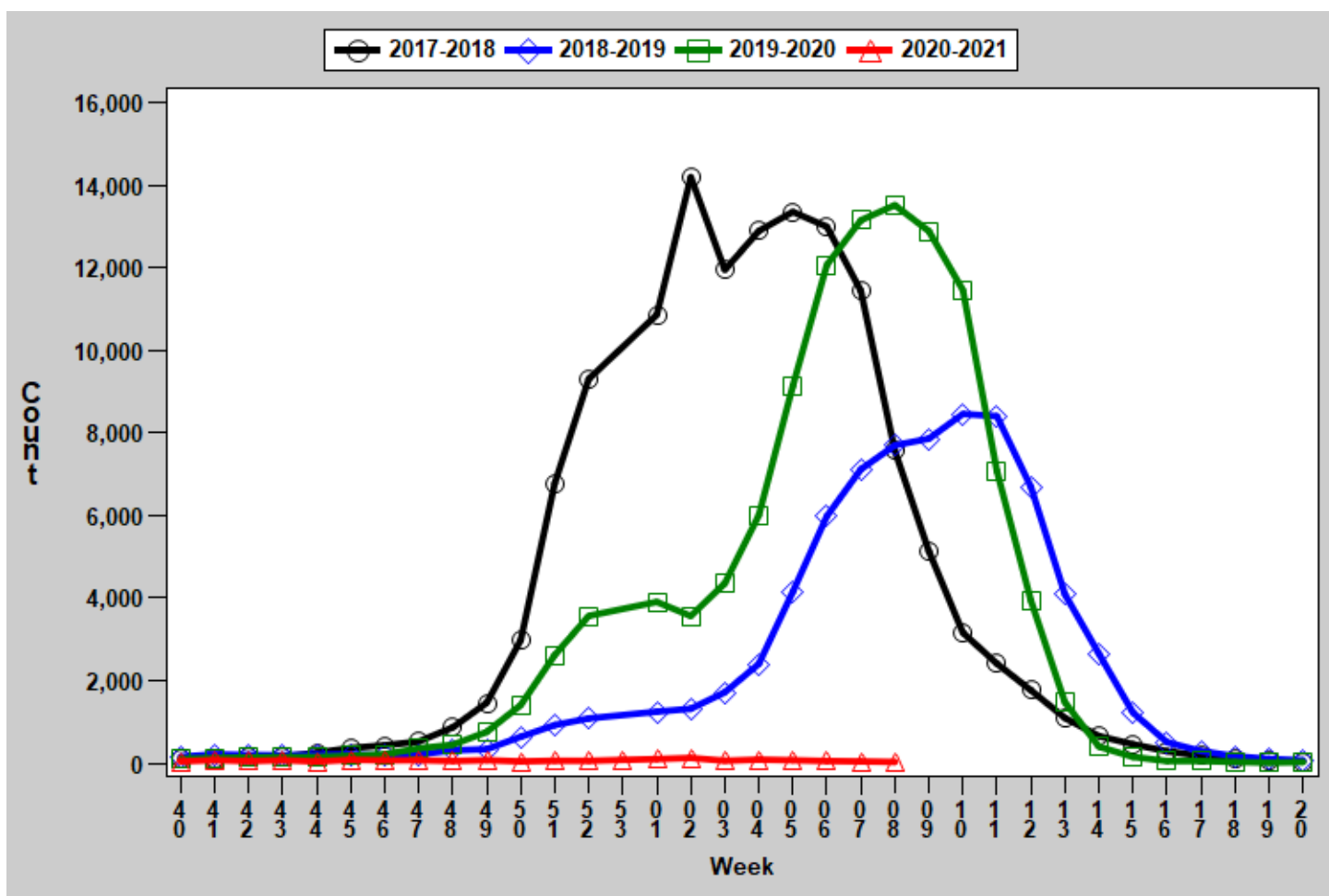
Region	Week 8 Cases	Week 8 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	5	0.74	180	26.59
Eastern	11	0.49	579	25.55
Northwest	4	0.25	170	10.64
Southeast	4	0.85	255	54.06
Southwest	5	0.47	233	21.75
Total	29	0.48	1,417	23.29

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

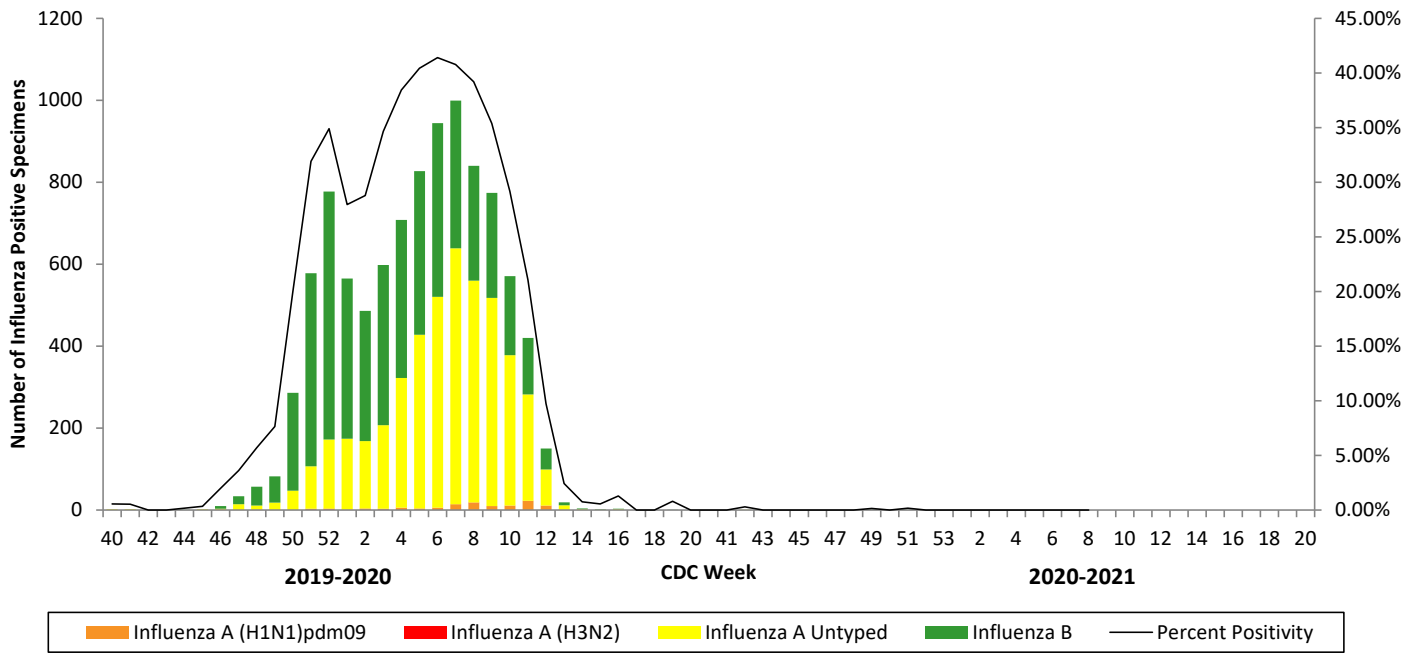
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021*



[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

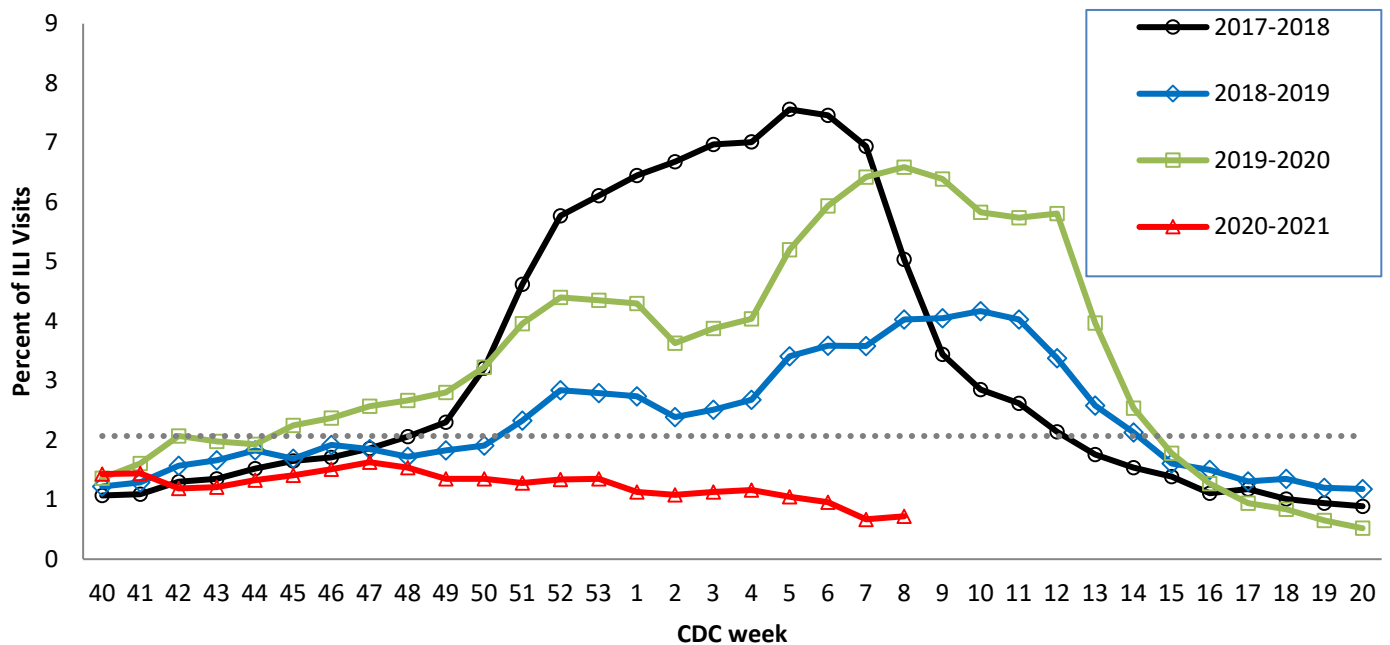
*2020-2021 season-to-date through the week ending May 22, 2021 (Week 20). Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

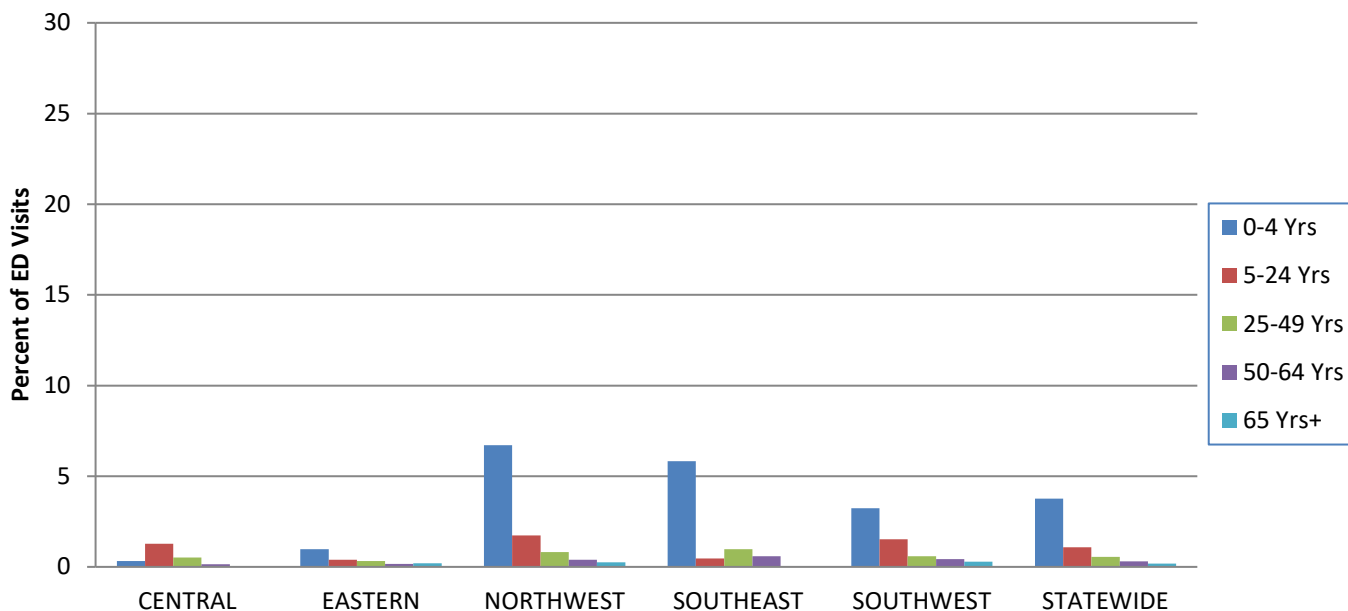


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

*There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

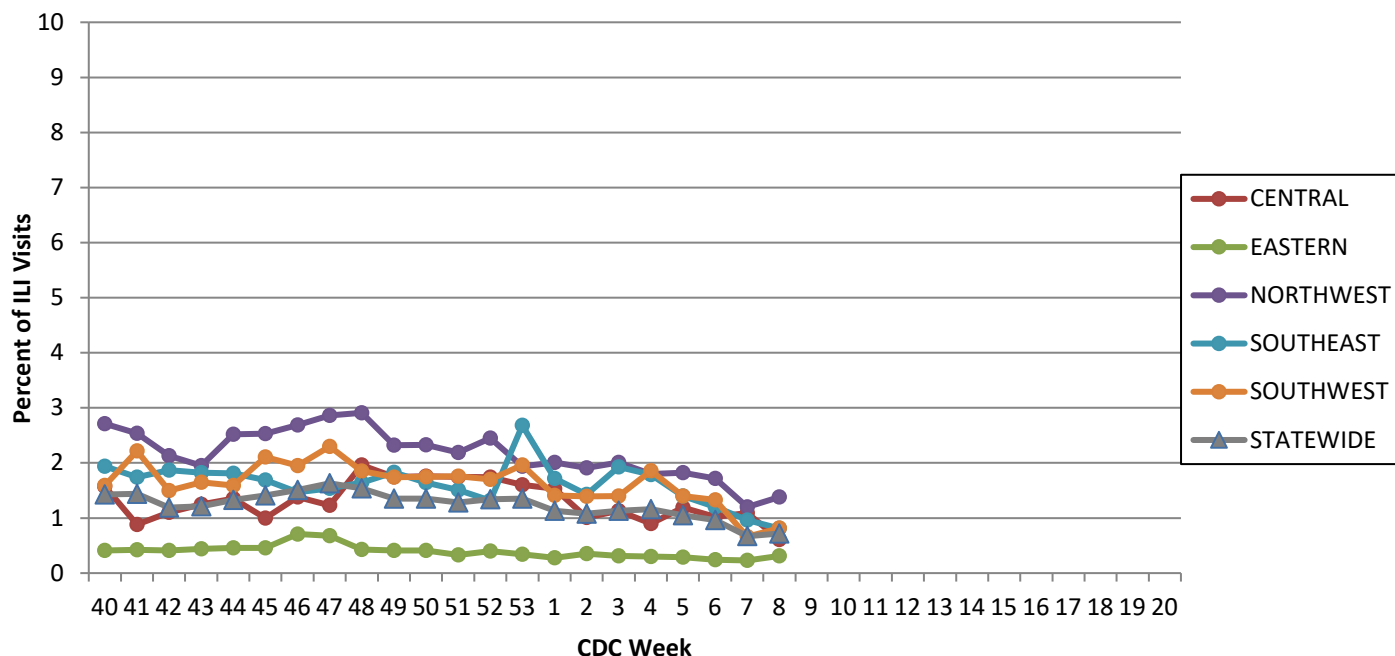
Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 8, 2021*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

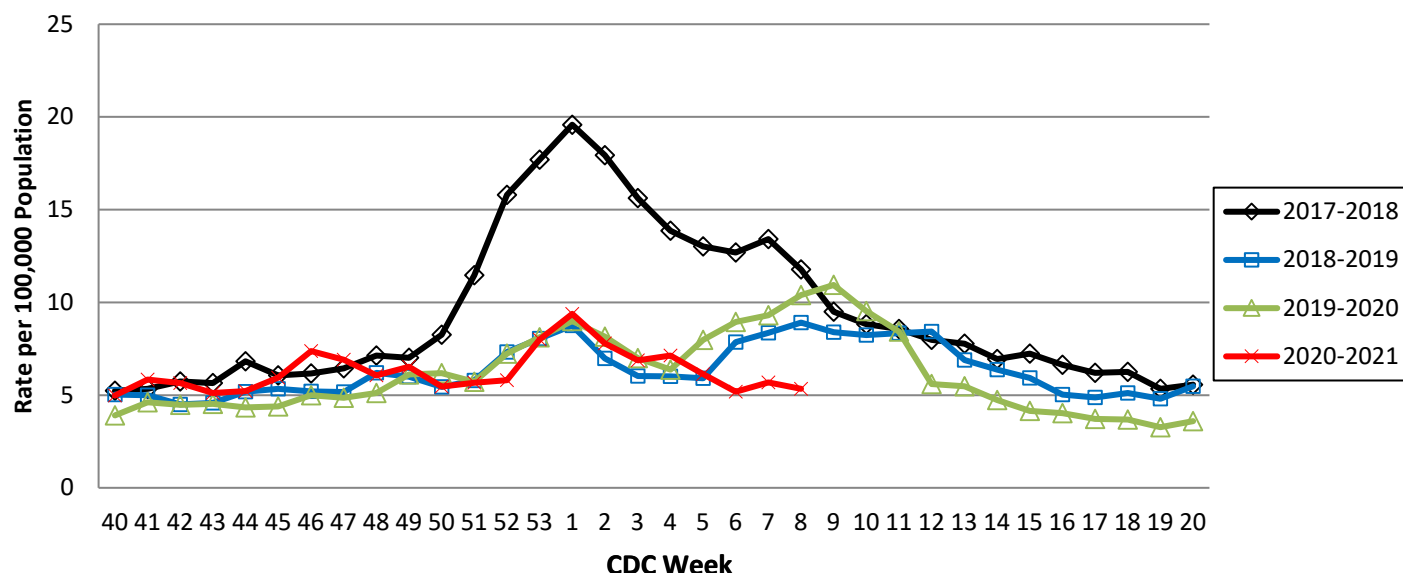
Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons**

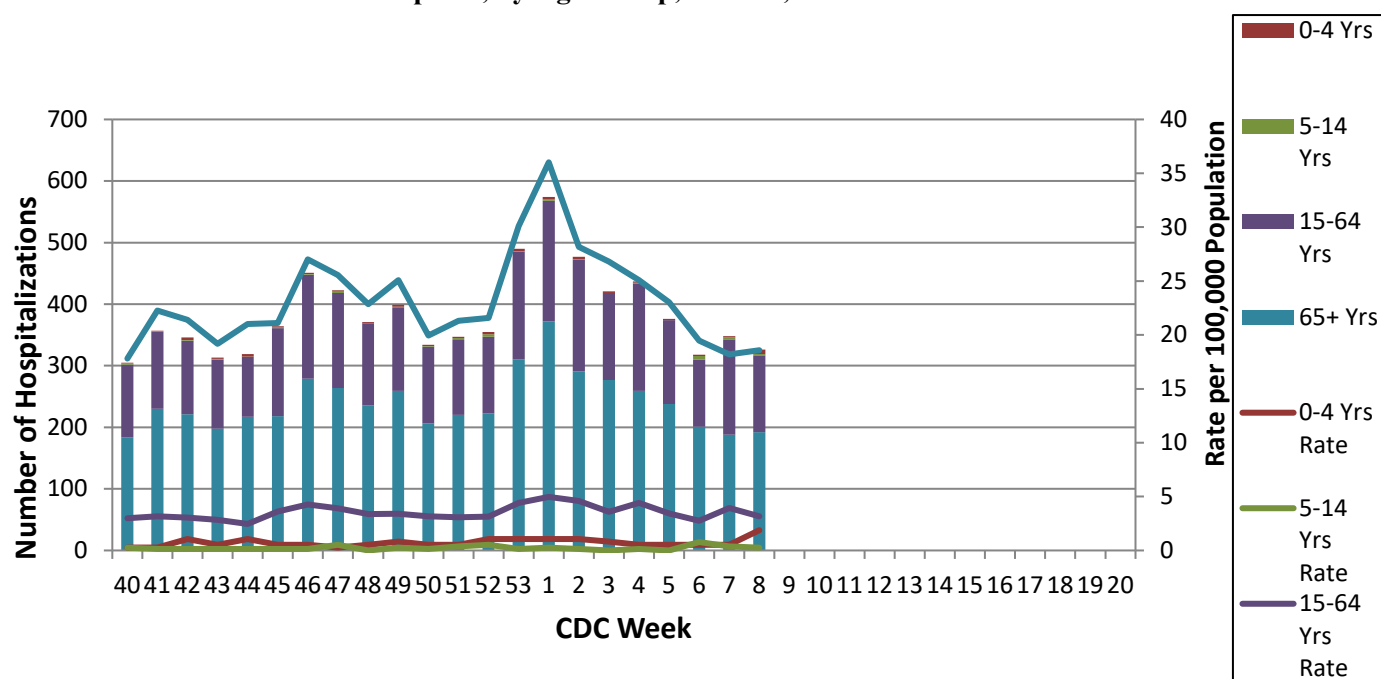


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 8, 2020-2021 Influenza Season**



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):
<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):
<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 9: February 28, 2021 – March 6, 2021

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 9 a total of 28 laboratory-positive³ influenza cases (15 influenza A and 13 influenza B) were reported. A season-to-date total of 1,459 laboratory-positive influenza cases (643 influenza A, 797 influenza B, and 19 untyped) have been reported in Missouri as of Week 9. The influenza type for cases reported season-to-date includes 44.1 % A, 54.6 % B and 1.3 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 9. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 9 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 0.76 % (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of one influenza-associated death has been reported in Missouri as of Week 9⁵.
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 9.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 9
- Reported Week-specific Rate per 100,000 Population, CDC Week 9
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 7 – 9, February 14, 2021 – March 6, 2021)*

Influenza Type	Week 7	Week 8	Week 9	2020-2021* Season-to-Date
Influenza A	14	17	15	643
Influenza B	31	20	13	797
Influenza Unknown Or Untyped	0	0	0	19
Total	45	37	28	1,459

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 9 (February 28 – March 6, 2021)*[‡]

Age Group	Week 9 Cases	Week 9 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	1	0.27	142	37.93
05-24	10	0.62	361	22.50
25-49	8	0.42	436	22.79
50-64	3	0.24	264	21.35
65+	6	0.63	256	26.81
Total	28	0.46	1,459	23.98

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 9 (February 21 – February 27, 2021)^{}**

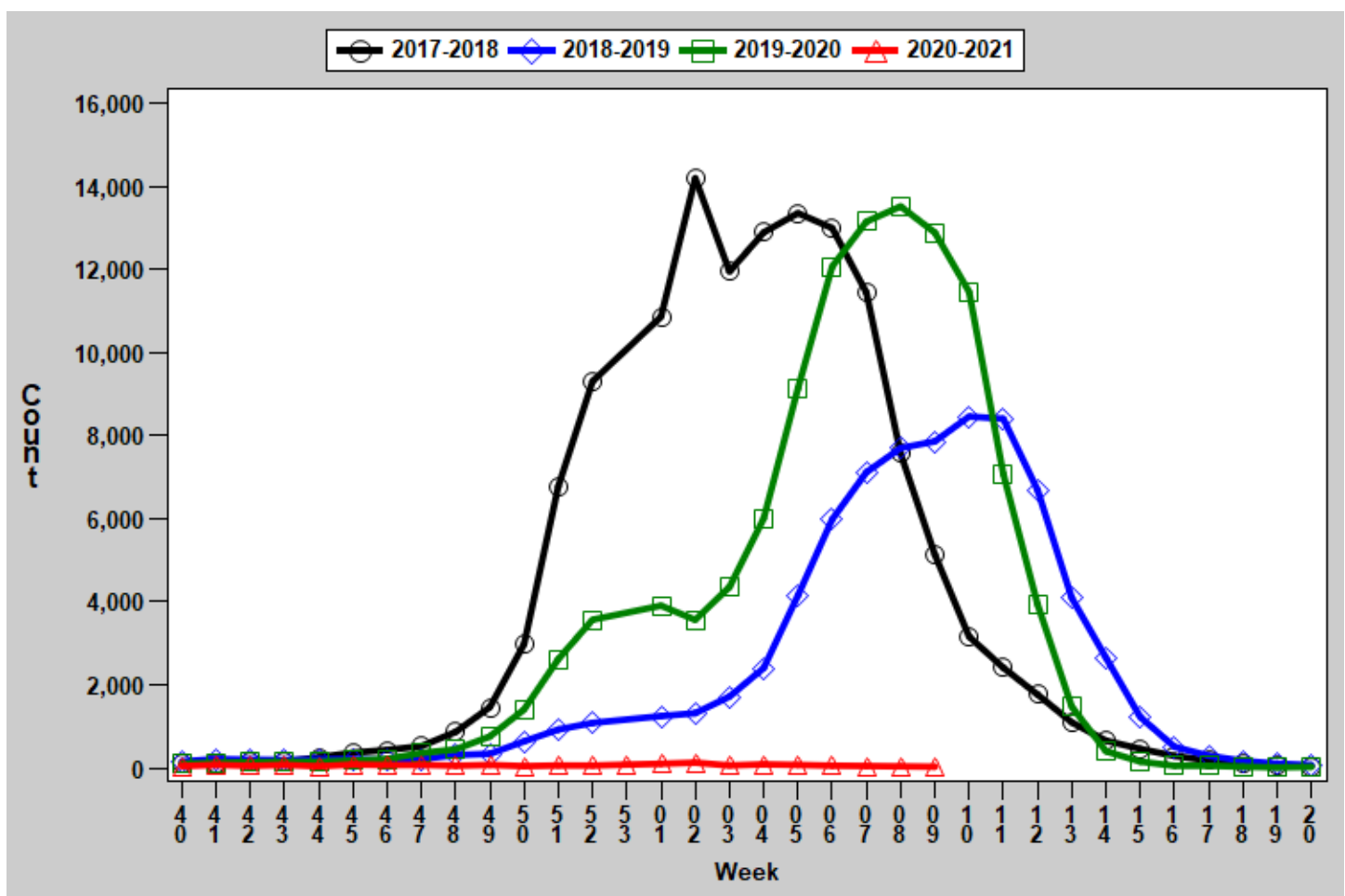
Region	Week 9 Cases	Week 9 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	0	0.00	186	27.47
Eastern	15	0.66	595	26.26
Northwest	2	0.13	174	10.89
Southeast	3	0.64	260	55.12
Southwest	8	0.75	244	22.78
Total	28	0.46	1,459	23.98

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{**}Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

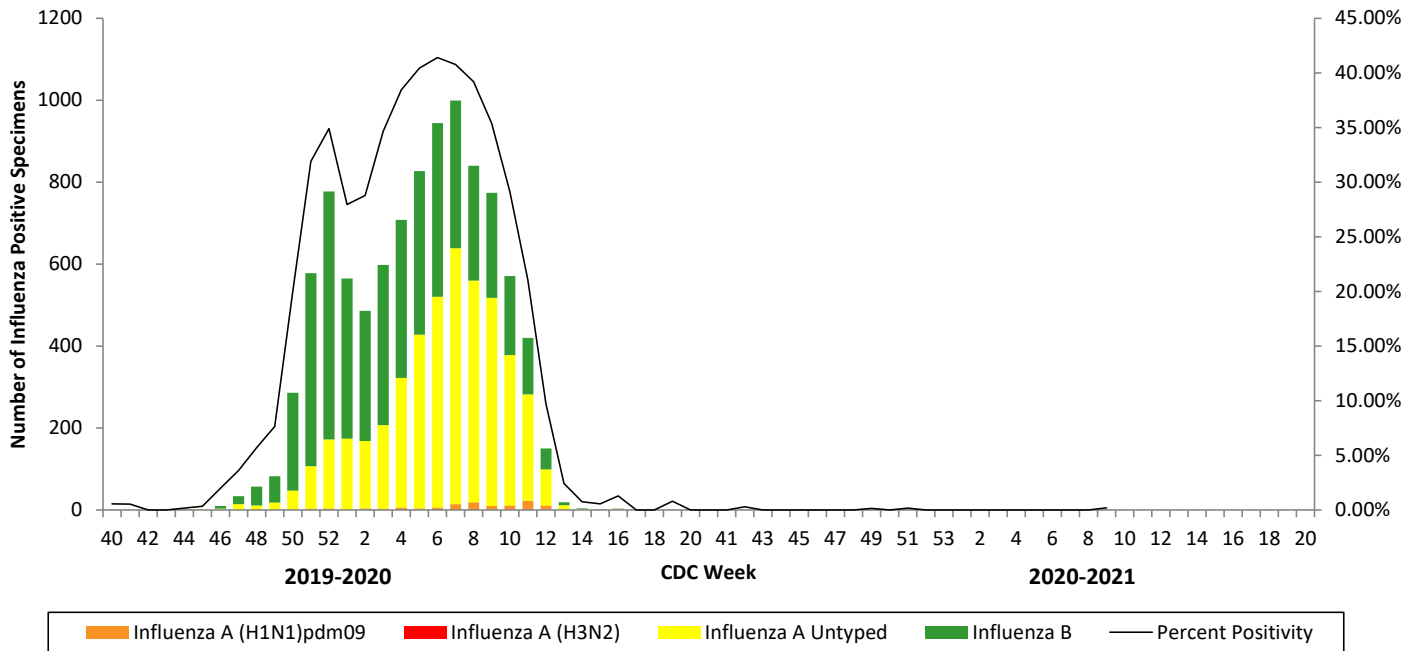
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021^{*}



[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

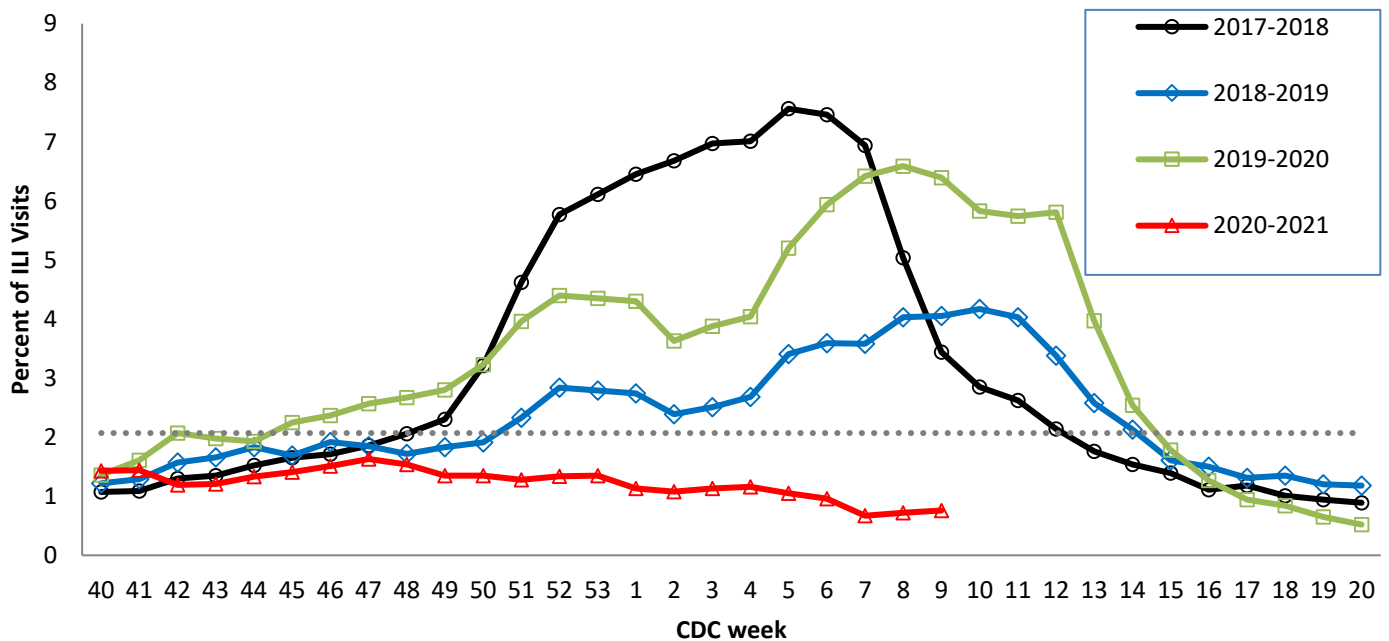
^{*}2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

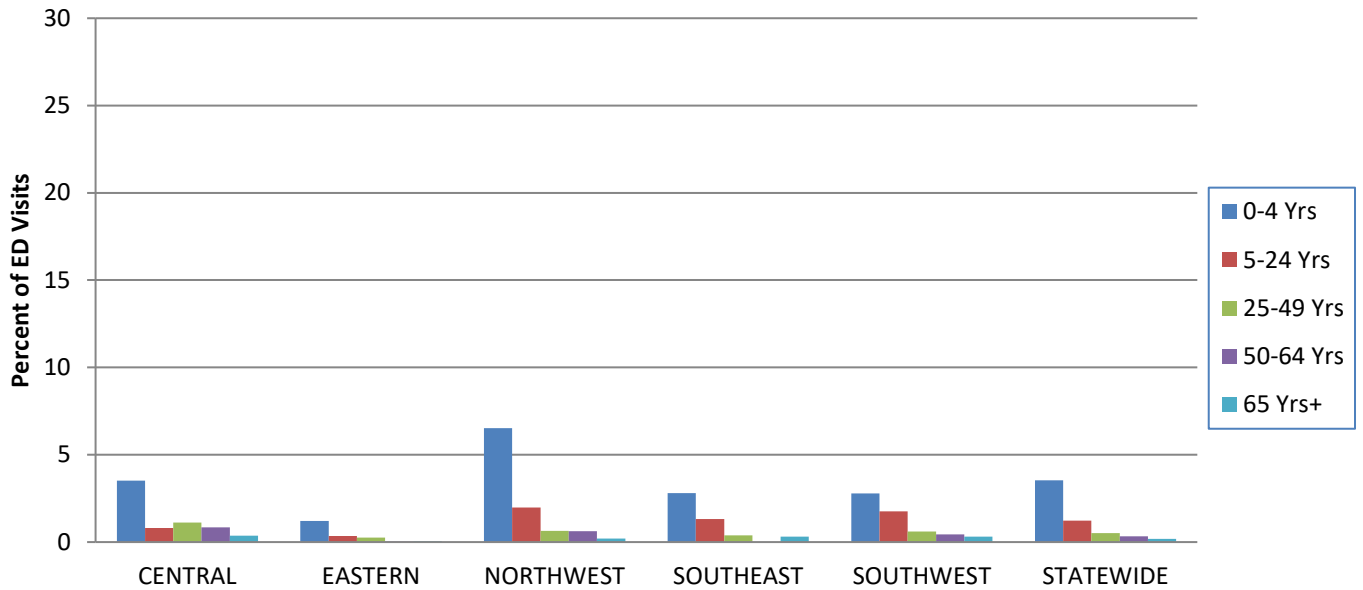


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

*There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

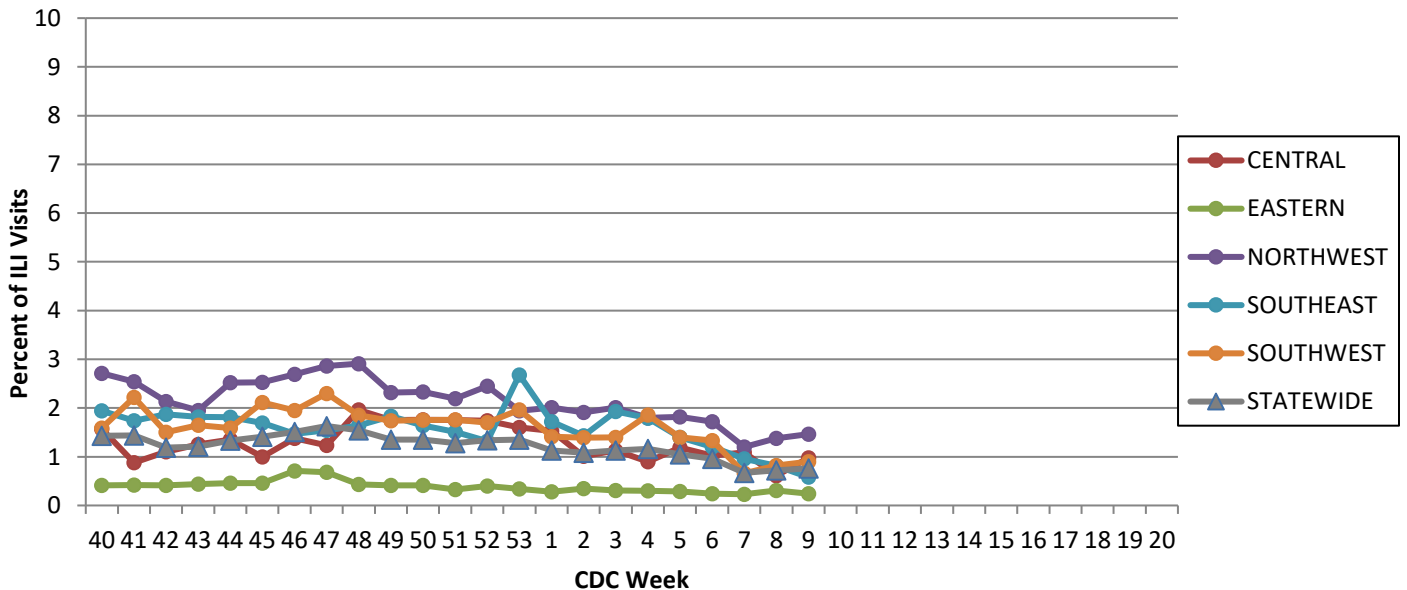
Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 9, 2021*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

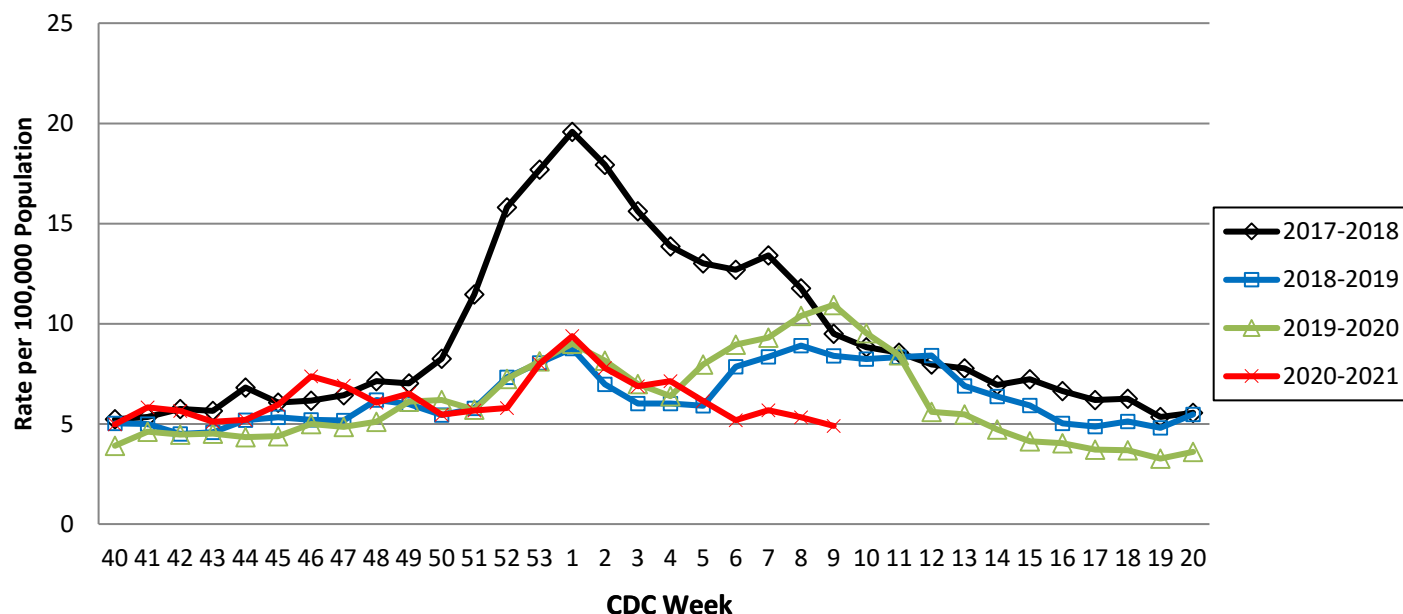
Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons**

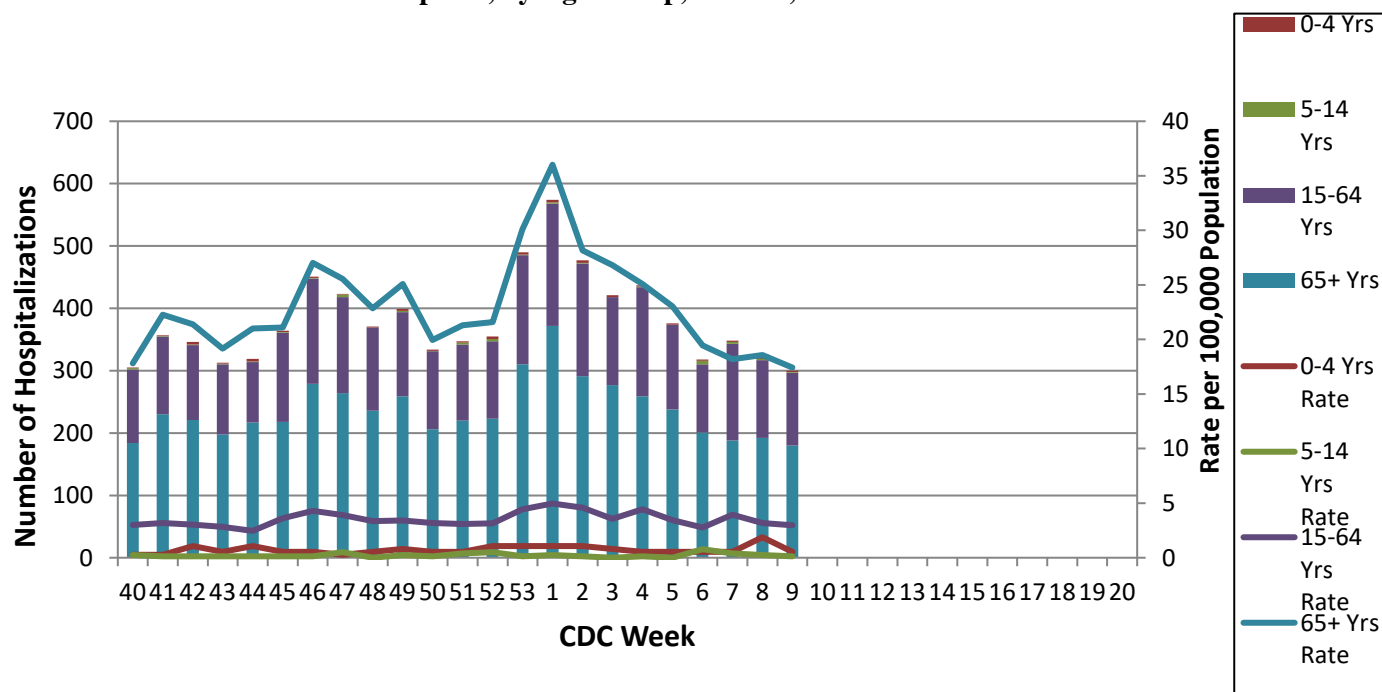


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 9, 2020-2021 Influenza Season**



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):
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The National Respiratory and Enteric Virus Surveillance System (NREVSS):
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World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 10: March 7, 2021 – March 13, 2021

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 10 a total of 25 laboratory-positive³ influenza cases (6 influenza A and 19 influenza B) were reported. A season-to-date total of 1,501 laboratory-positive influenza cases (657 influenza A, 825 influenza B, and 19 untyped) have been reported in Missouri as of Week 10. The influenza type for cases reported season-to-date includes 43.8 % A, 54.9 % B and 1.3 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 10. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 10 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 0.90 % (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of one influenza-associated death has been reported in Missouri as of Week 10⁵.
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 10.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 10
- Reported Week-specific Rate per 100,000 Population, CDC Week 10
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 8 – 10, February 21, 2021 – March 13, 2021)*

Influenza Type	Week 8	Week 9	Week 10	2020-2021* Season-to-Date
Influenza A	17	23	6	657
Influenza B	21	20	19	825
Influenza Unknown Or Untyped	0	0	0	19
Total	38	43	25	1,501

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 10, March 7 – March 13, 2021)*

Age Group	Week 10 Cases	Week 10 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	9	2.40	156	41.67
05-24	14	0.87	378	23.56
25-49	1	0.05	440	22.99
50-64	1	0.08	270	21.84
65+	0	0.00	257	26.91
Total	25	0.41	1,501	24.67

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 10, March 7 – March 13, 2021)^{*,†}

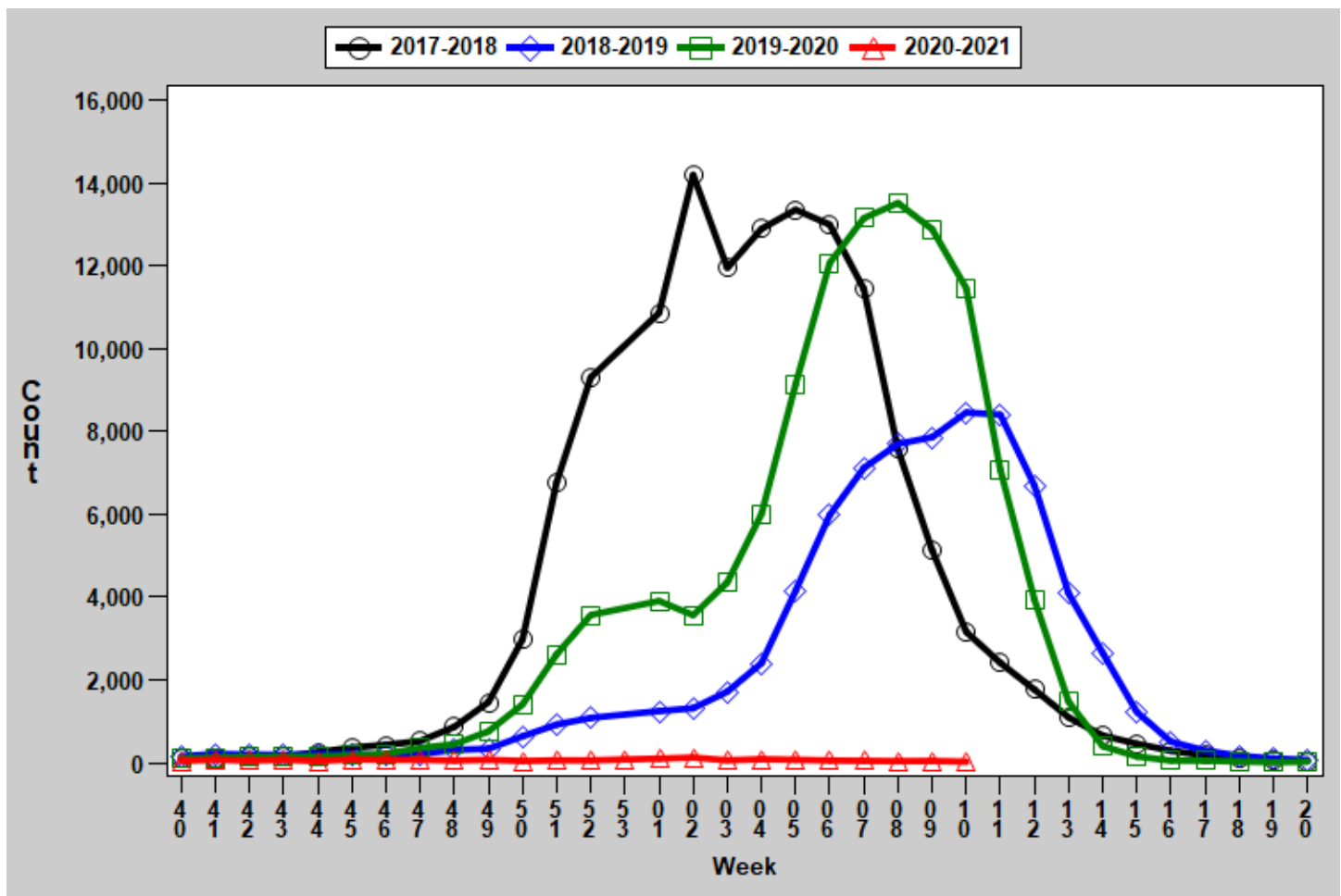
Region	Week 10 Cases	Week 10 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	3	0.44	193	28.51
Eastern	6	0.26	604	26.65
Northwest	10	0.63	186	11.64
Southeast	3	0.64	270	57.24
Southwest	3	0.28	248	23.15
Total	25	0.41	1,501	24.67

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

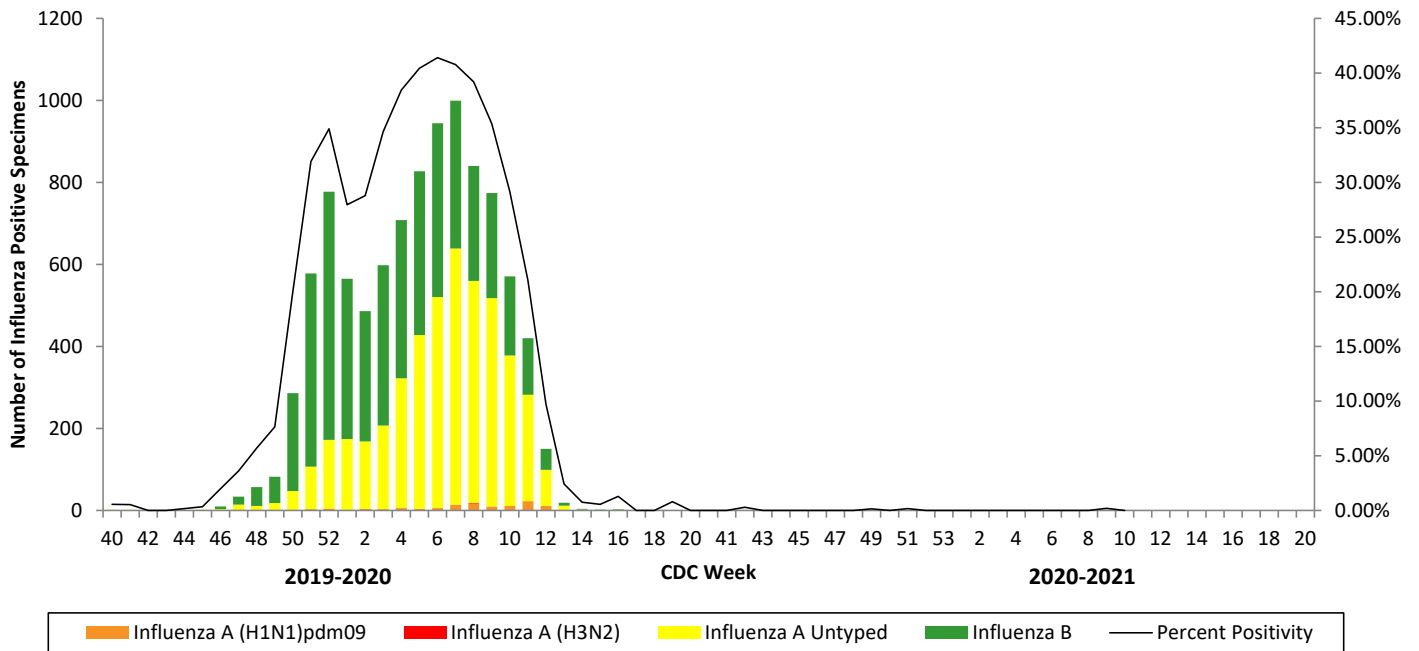
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021^{*}



[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

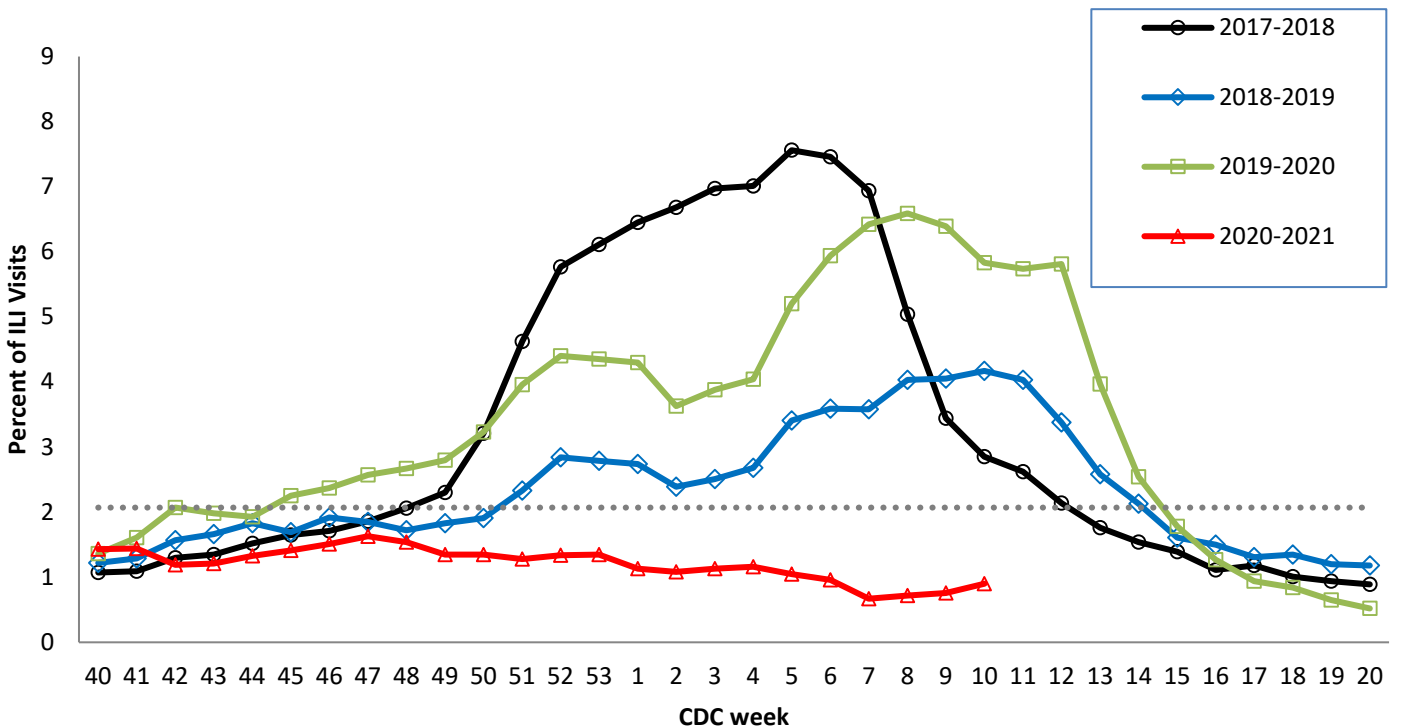
*2020-2021 season-to-date through the week ending May 22, 2021 (Week 20). Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

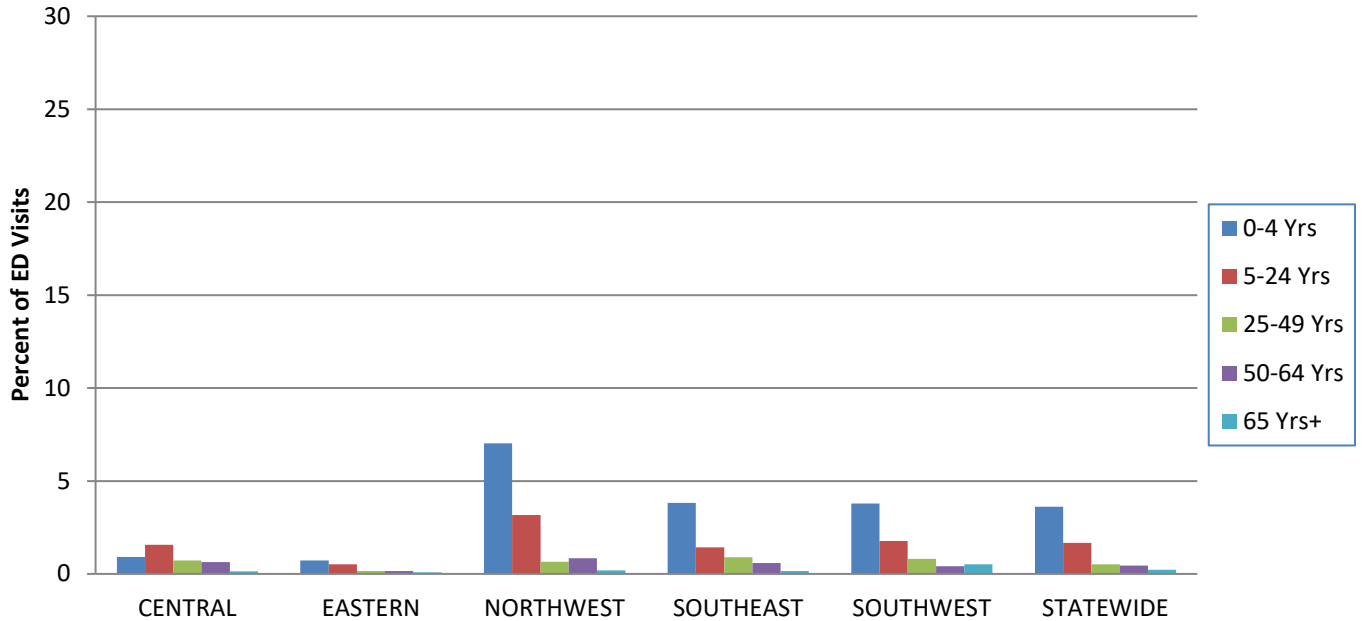


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

*There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

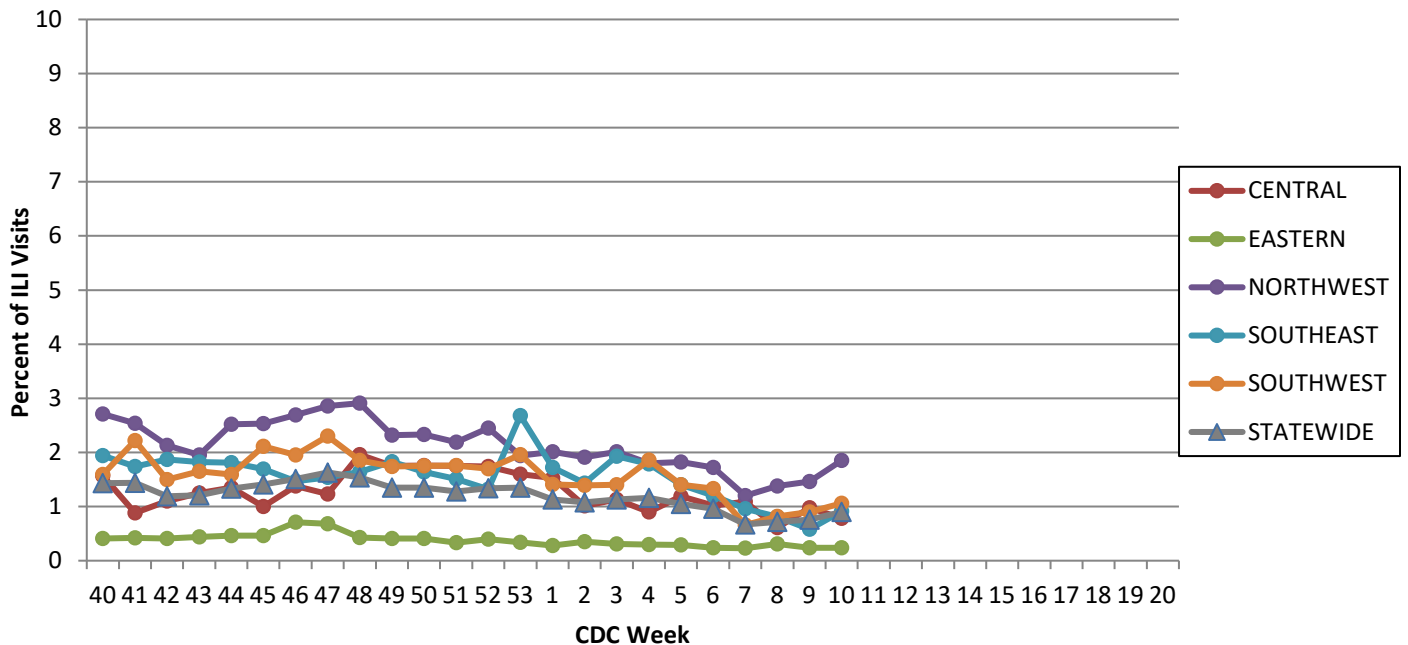
Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 10, 2021*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

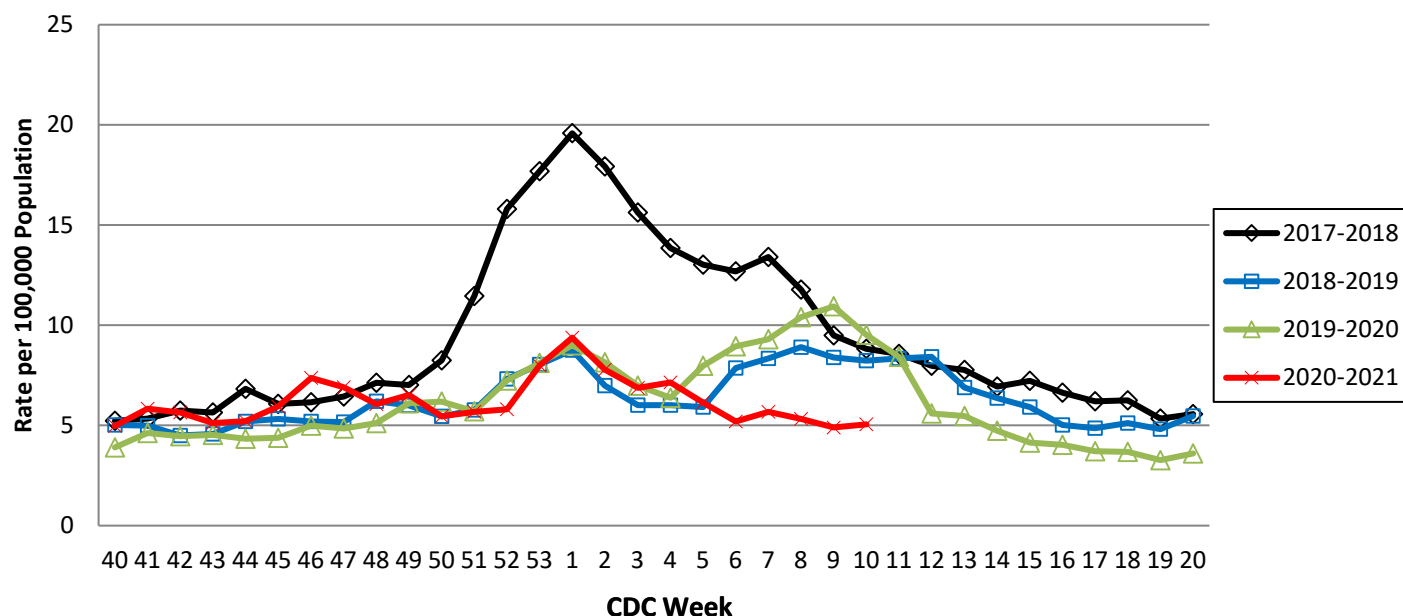
Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons**

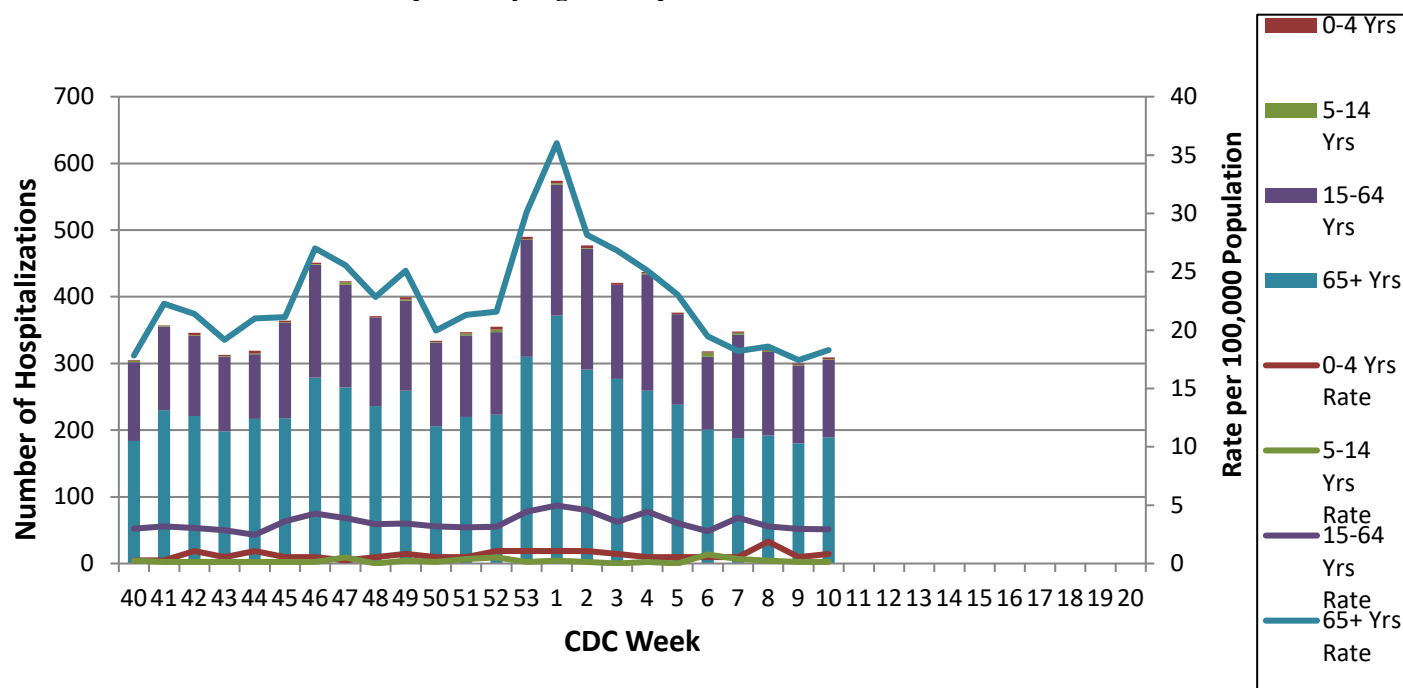


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 10, 2020-2021 Influenza Season**



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):
<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):
<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 11: March 14, 2021 – March 20, 2021

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 11 a total of 24 laboratory-positive³ influenza cases (14 influenza A and 10 influenza B) were reported. A season-to-date total of 1,529 laboratory-positive influenza cases (674 influenza A, 836 influenza B, and 19 untyped) have been reported in Missouri as of Week 11. The influenza type for cases reported season-to-date includes 44.1 % A, 54.7 % B and 1.2 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 11. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 11 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 0.82 % (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of one influenza-associated death has been reported in Missouri as of Week 11⁵.
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 11.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIfevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 11
- Reported Week-specific Rate per 100,000 Population, CDC Week 11
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 9 – 11, February 28, 2021 – March 20, 2021)*

Influenza Type	Week 9	Week 10	Week 11	2020-2021* Season-to-Date
Influenza A	23	9	14	674
Influenza B	20	19	10	836
Influenza Unknown Or Untyped	0	0	0	19
Total	43	28	24	1529

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 11, March 14 – March 20, 2021)*[‡]

Age Group	Week 11 Cases	Week 11 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	2	0.53	158	42.21
05-24	8	0.50	387	24.21
25-49	5	0.26	445	23.26
50-64	4	0.32	276	22.32
65+	5	0.52	263	27.54
Total	24	0.39	1529	25.13

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 11, March 14 – March 20, 2021)^{}**

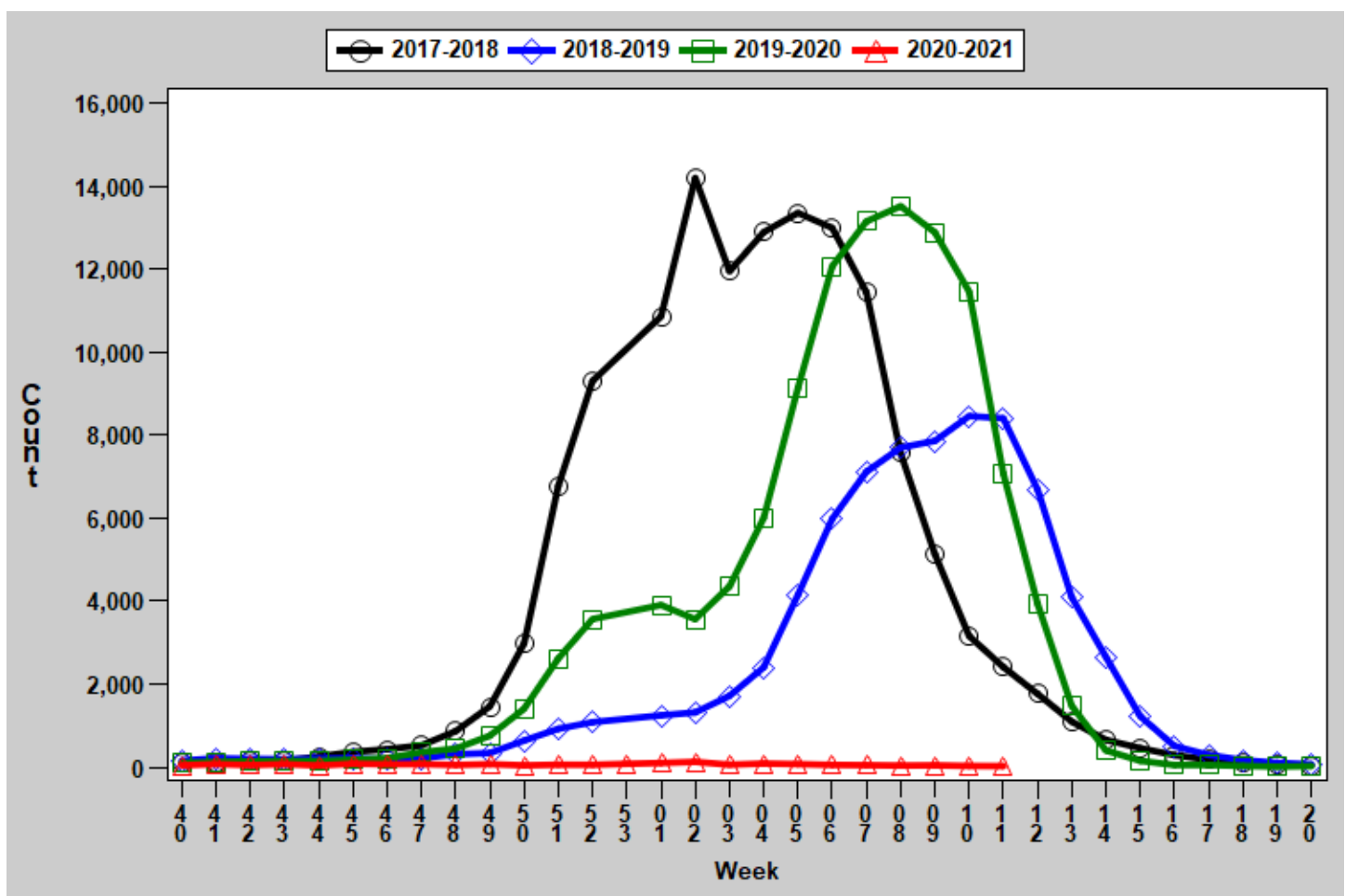
Region	Week 11 Cases	Week 11 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	3	0.44	197	29.10
Eastern	14	0.62	619	27.32
Northwest	1	0.06	189	11.83
Southeast	1	0.21	271	57.45
Southwest	5	0.47	253	23.62
Total	24	0.39	1,529	25.13

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*}Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

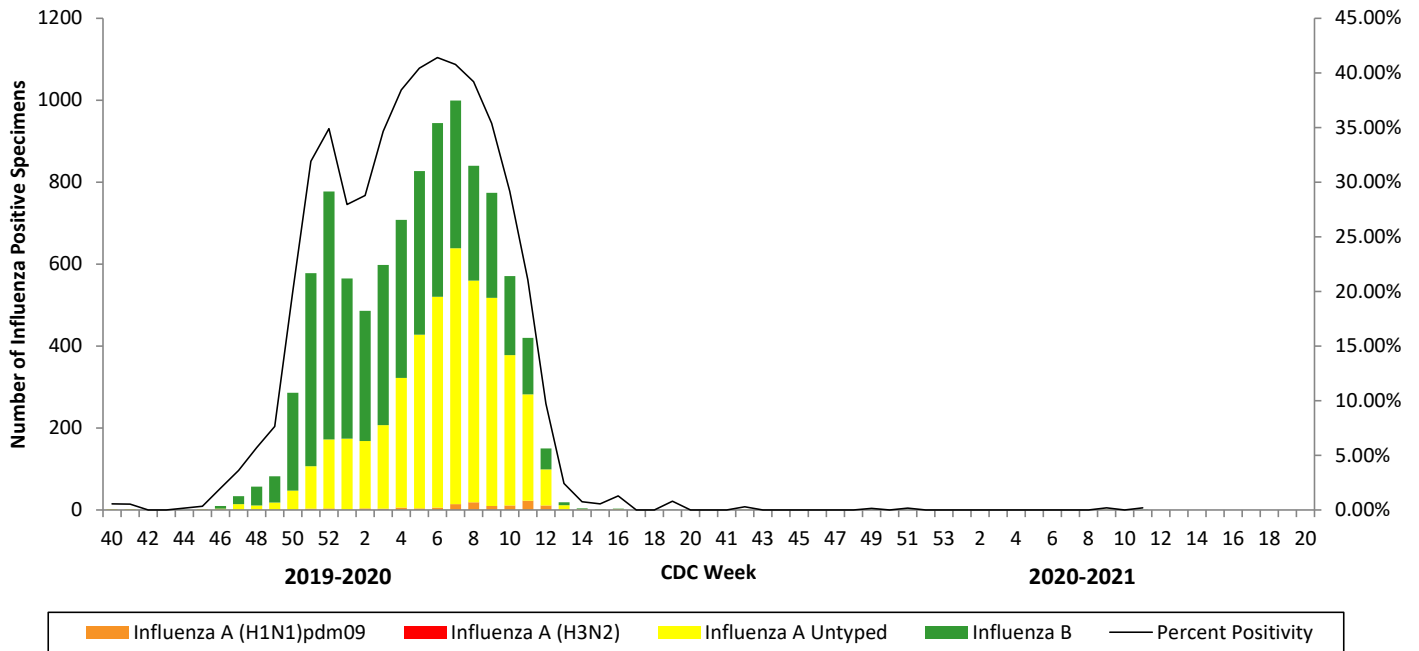
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021^{*}



[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

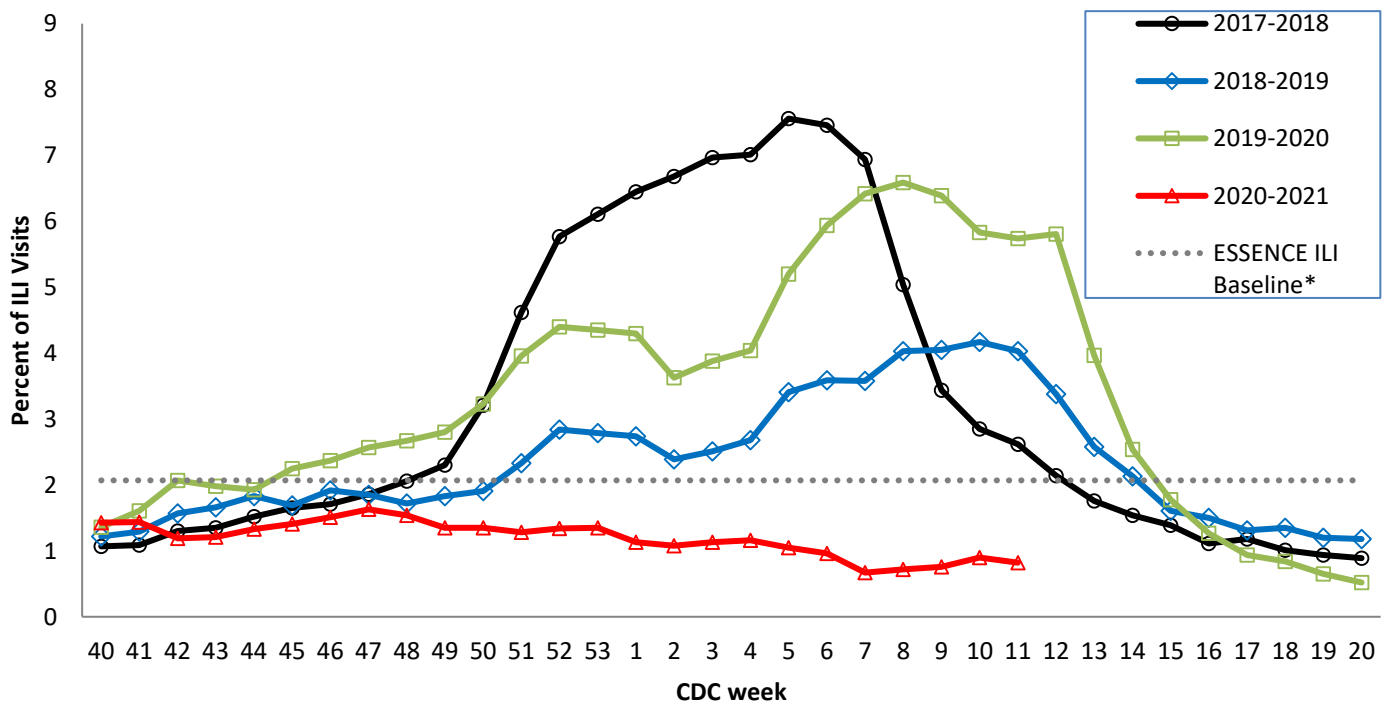
^{*}2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

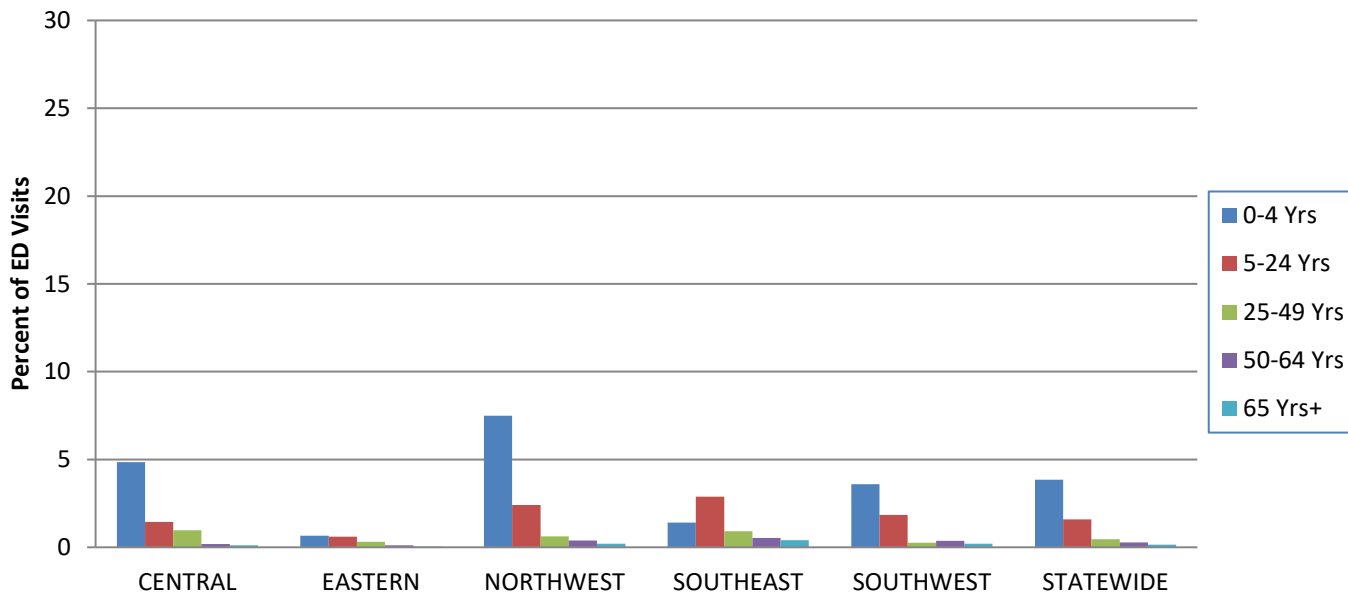


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCE ILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

*There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

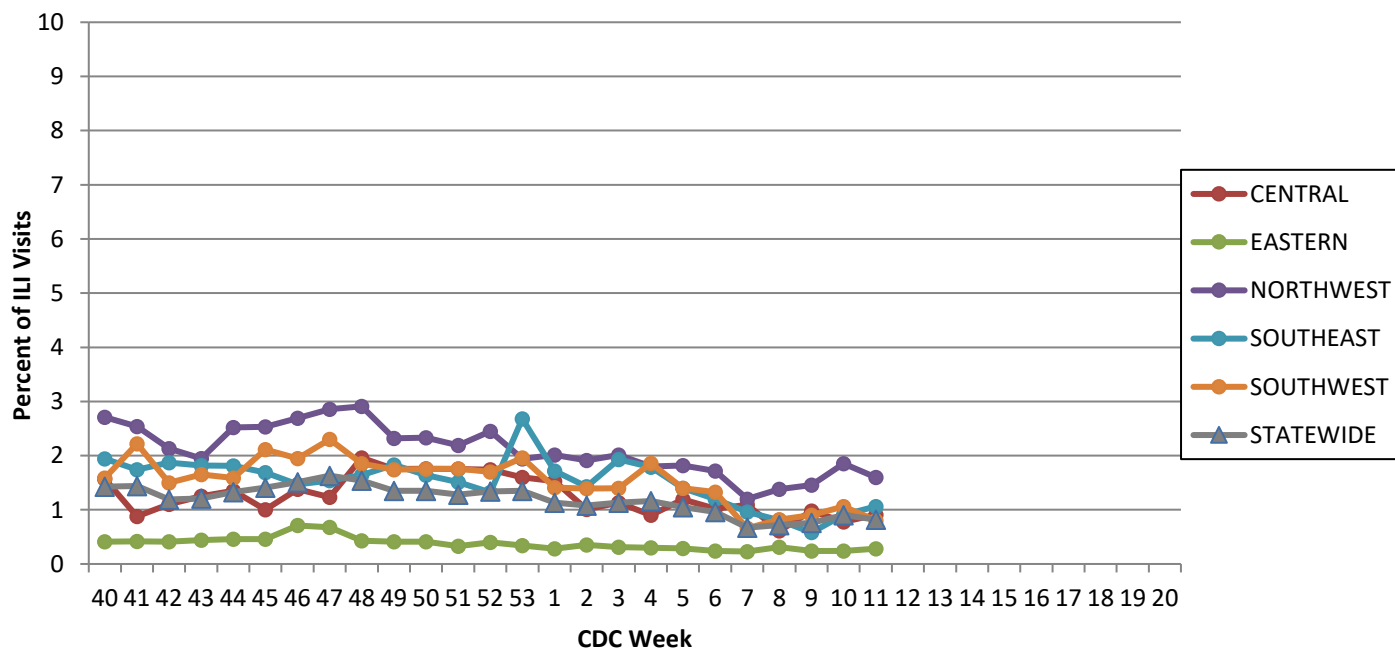
Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 11, 2021*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

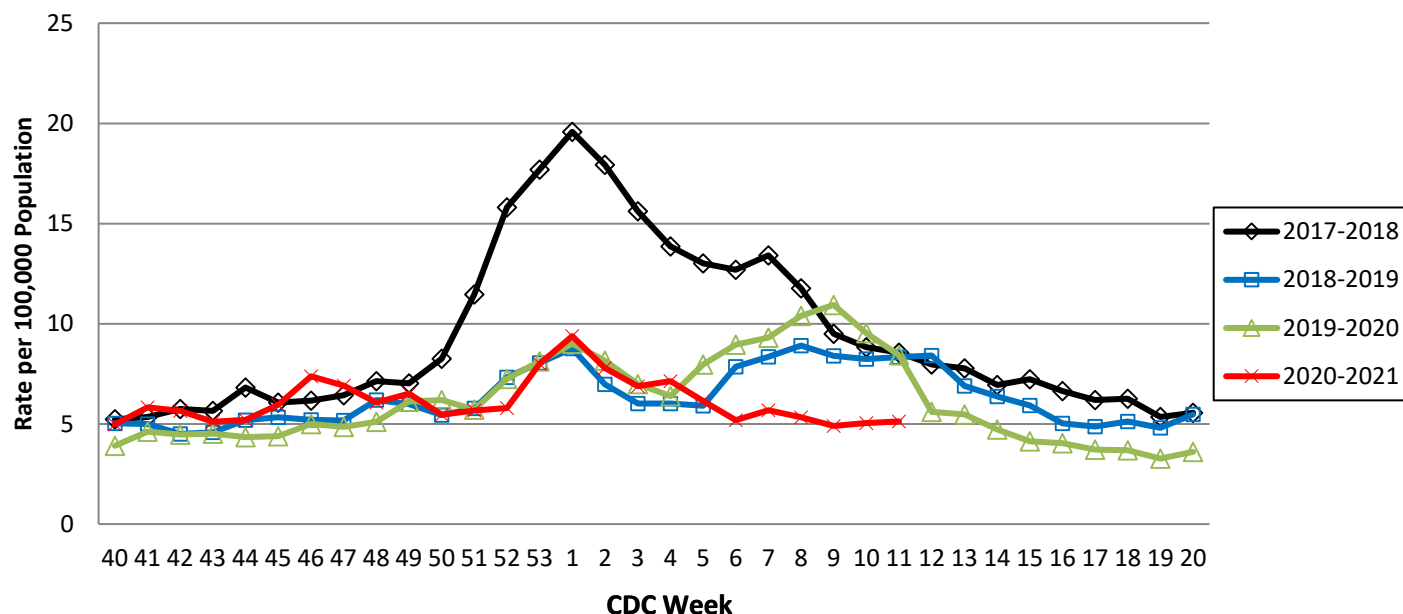
Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons**

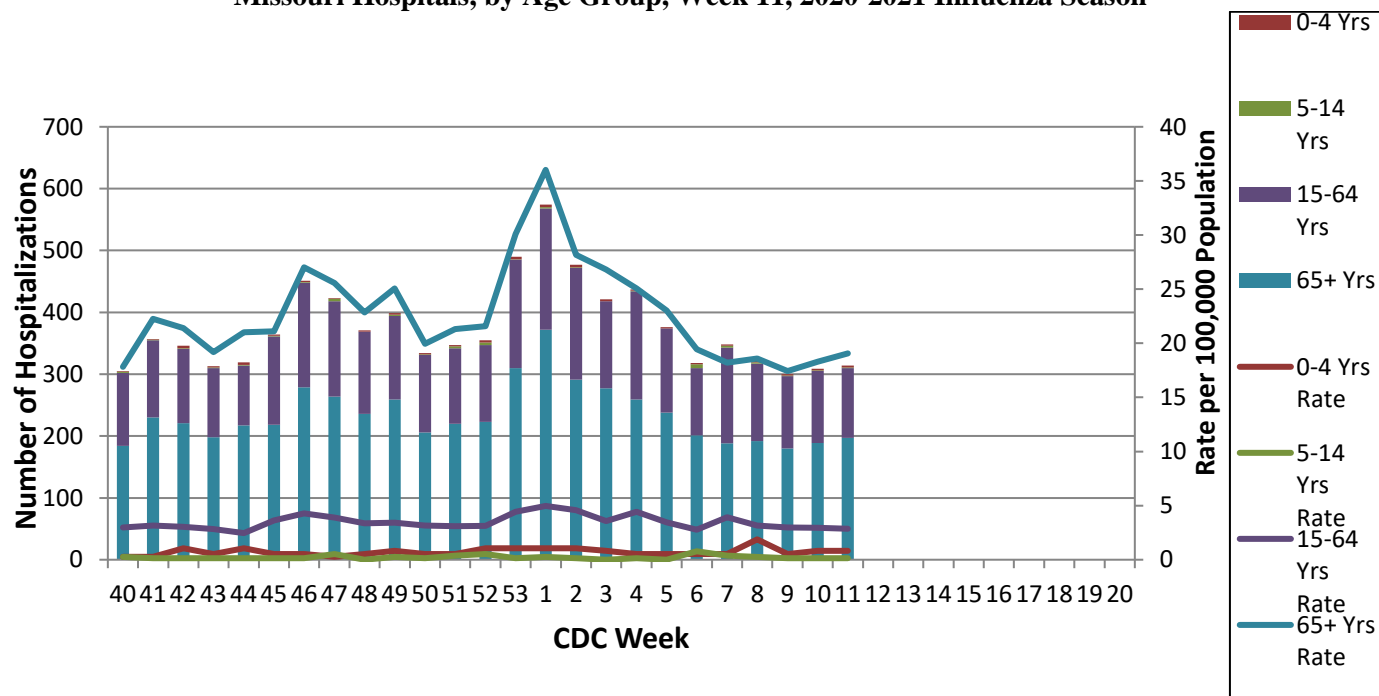


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 11, 2020-2021 Influenza Season**



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):

<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):

<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:

http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 12: March 21, 2021 – March 27, 2021

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 12 a total of 23 laboratory-positive³ influenza cases (8 influenza A and 15 influenza B) were reported. A season-to-date total of 1,563 laboratory-positive influenza cases (687 influenza A, 857 influenza B, and 19 untyped) have been reported in Missouri as of Week 12. The influenza type for cases reported season-to-date includes 44 % A, 54.8 % B and 1.2 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 12. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 12 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 0.95 % (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of one influenza-associated death has been reported in Missouri as of Week 12⁵.
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 12.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 12
- Reported Week-specific Rate per 100,000 Population, CDC Week 12
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 10 – 12, March 7, 2021 – March 27, 2021)*

Influenza Type	Week 10	Week 11	Week 12	2020-2021* Season-to-Date
Influenza A	9	19	8	687
Influenza B	20	13	15	857
Influenza Unknown Or Untyped	0	0	0	19
Total	29	32	23	1,563

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 12, March 21 – March 27, 2021)**

Age Group	Week 12 Cases	Week 12 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	3	0.80	163	43.54
05-24	7	0.44	399	24.87
25-49	7	0.37	456	23.83
50-64	3	0.24	279	22.57
65+	3	0.31	266	27.86
Total	23	0.38	1,563	26.69

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 12, March 21 – March 27, 2021)^{}**

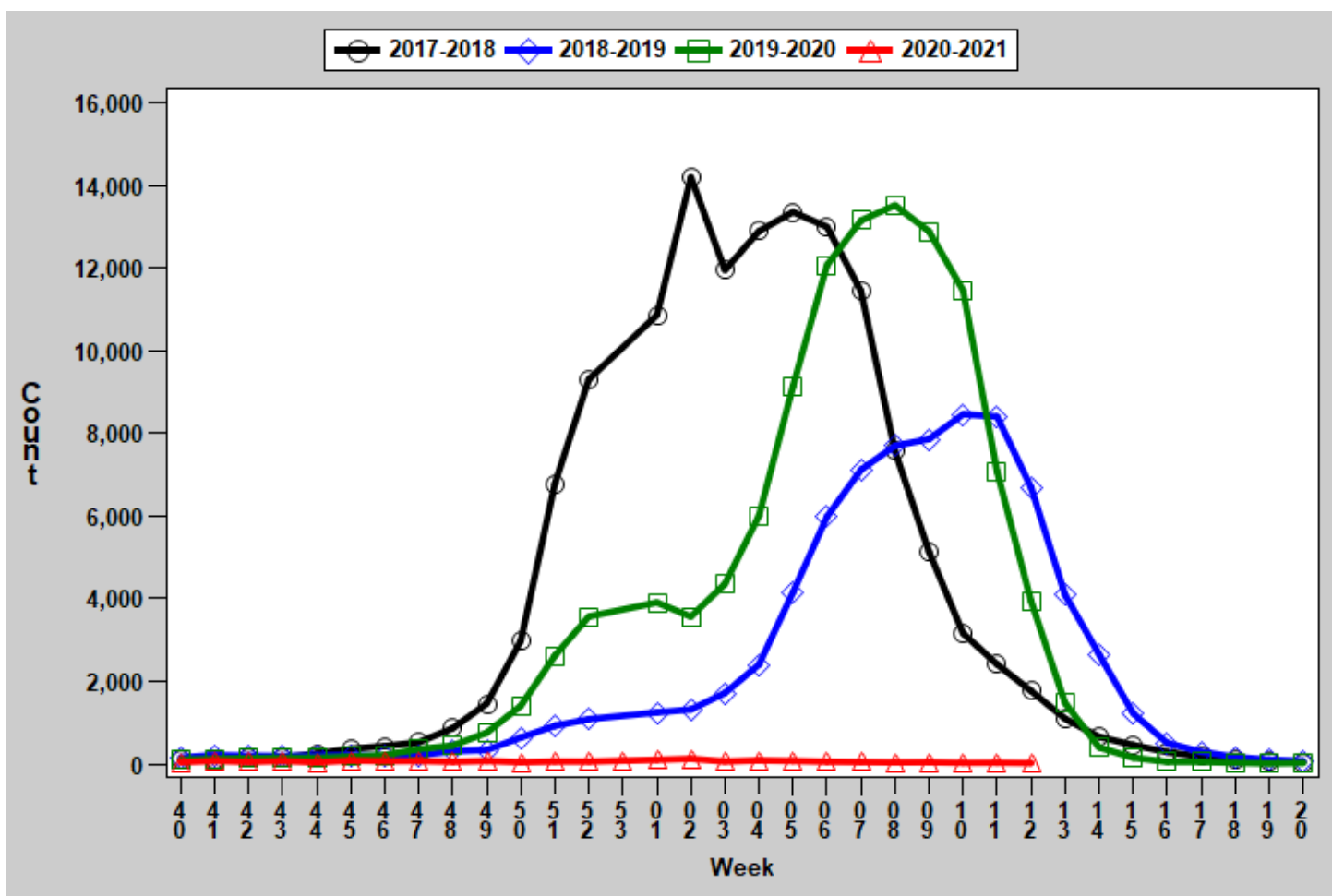
Region	Week 12 Cases	Week 12 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	5	0.74	210	31.02
Eastern	9	0.40	628	27.71
Northwest	4	0.25	196	12.27
Southeast	0	0.00	271	57.45
Southwest	5	0.47	258	24.08
Total	23	0.38	1,563	25.69

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

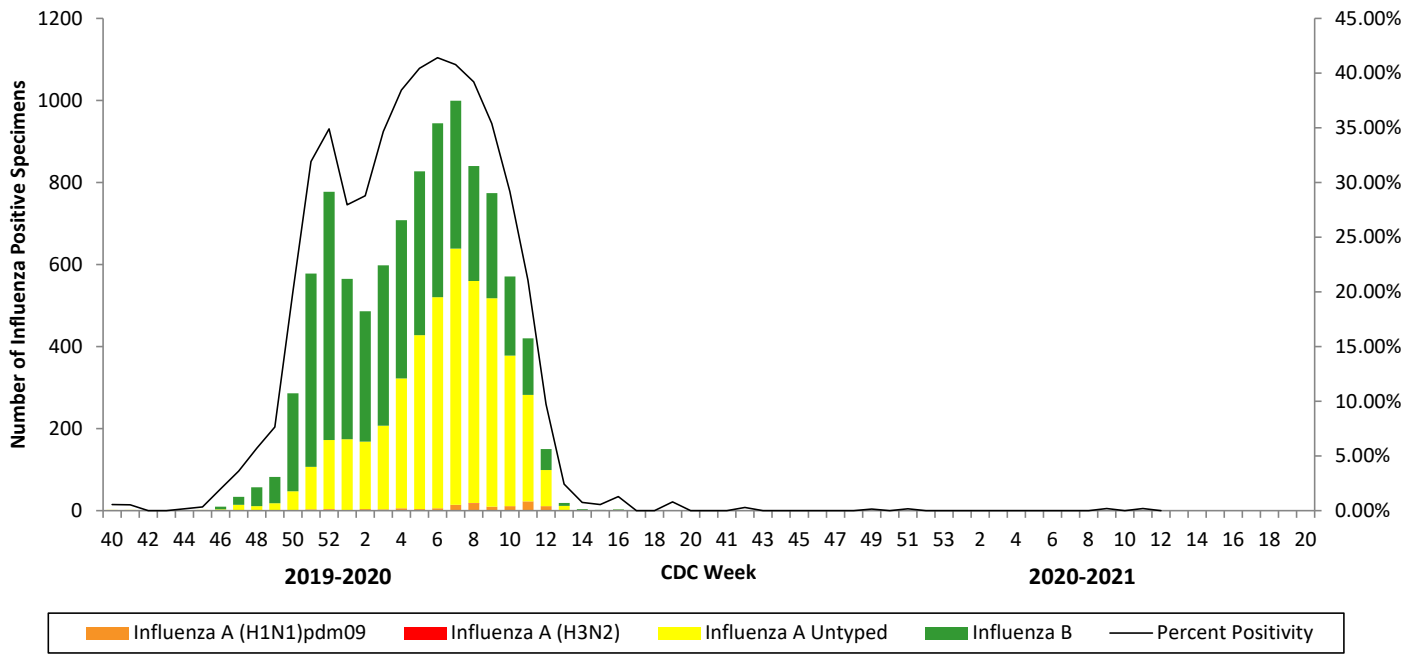
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021^{*}



[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

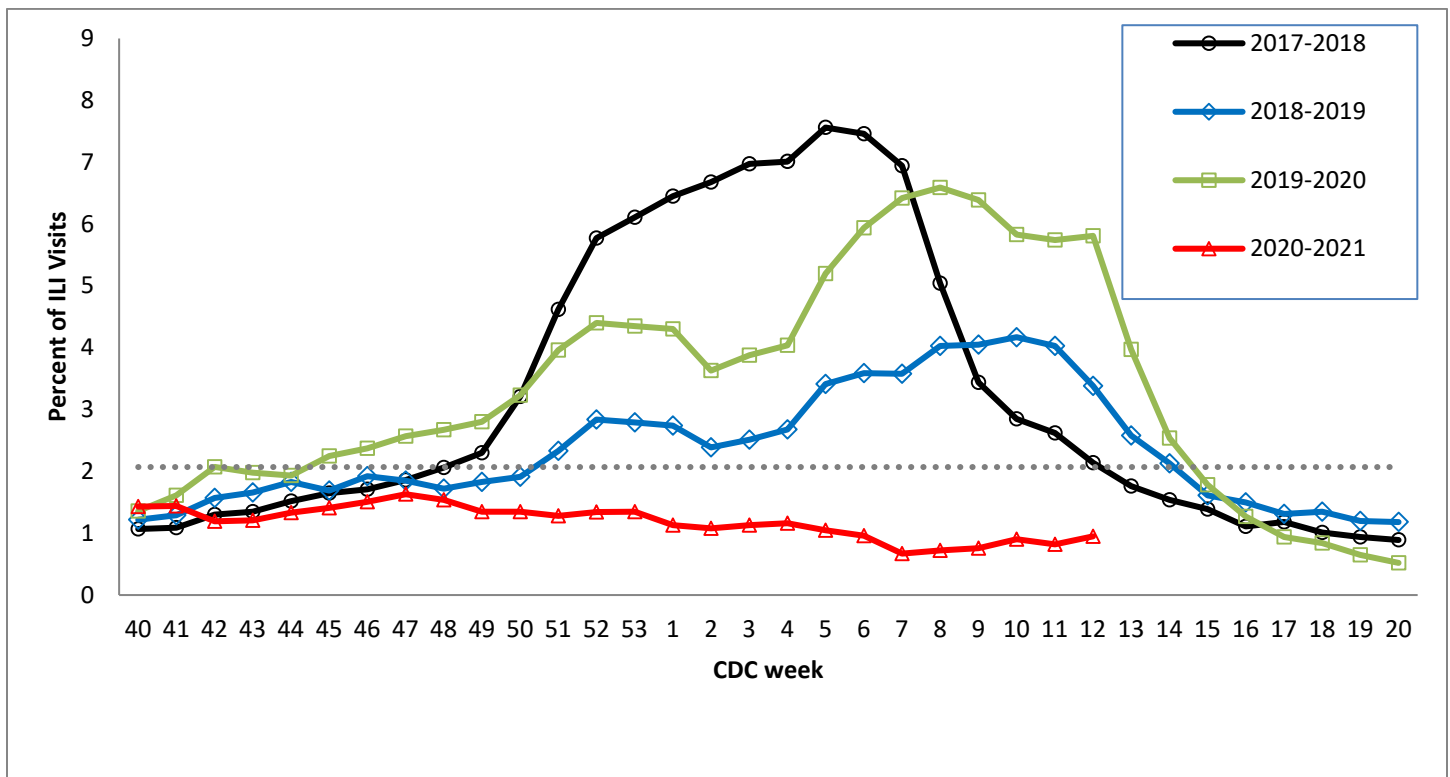
*2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC). 2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

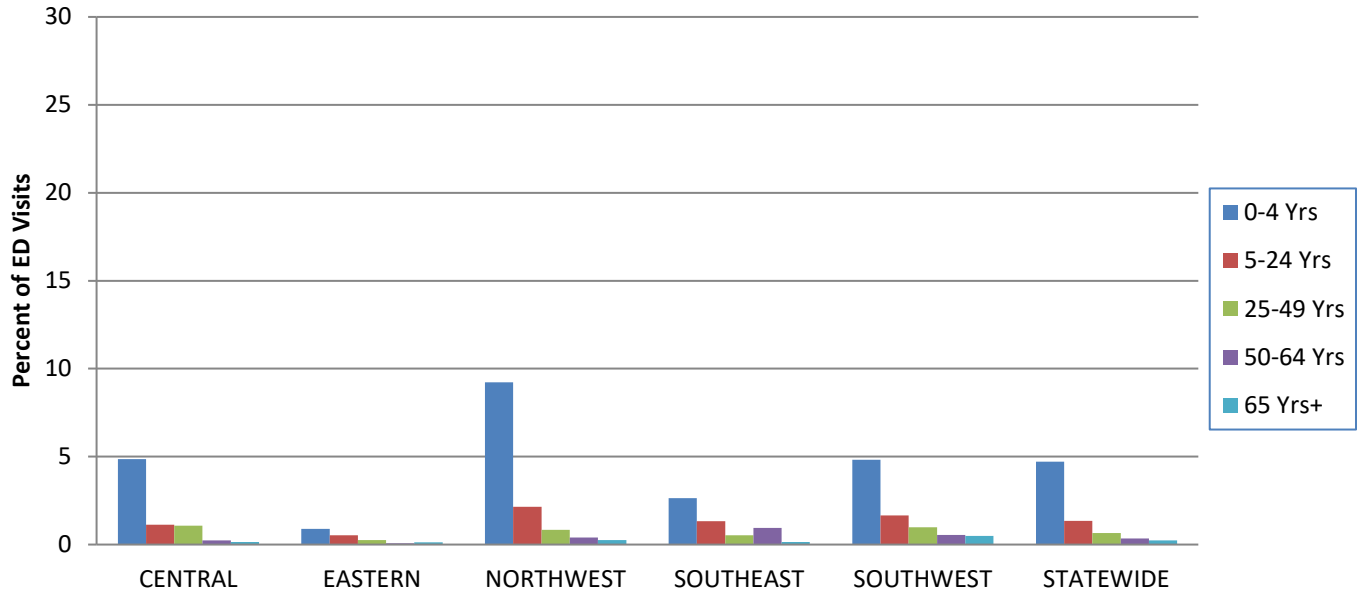


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

*There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

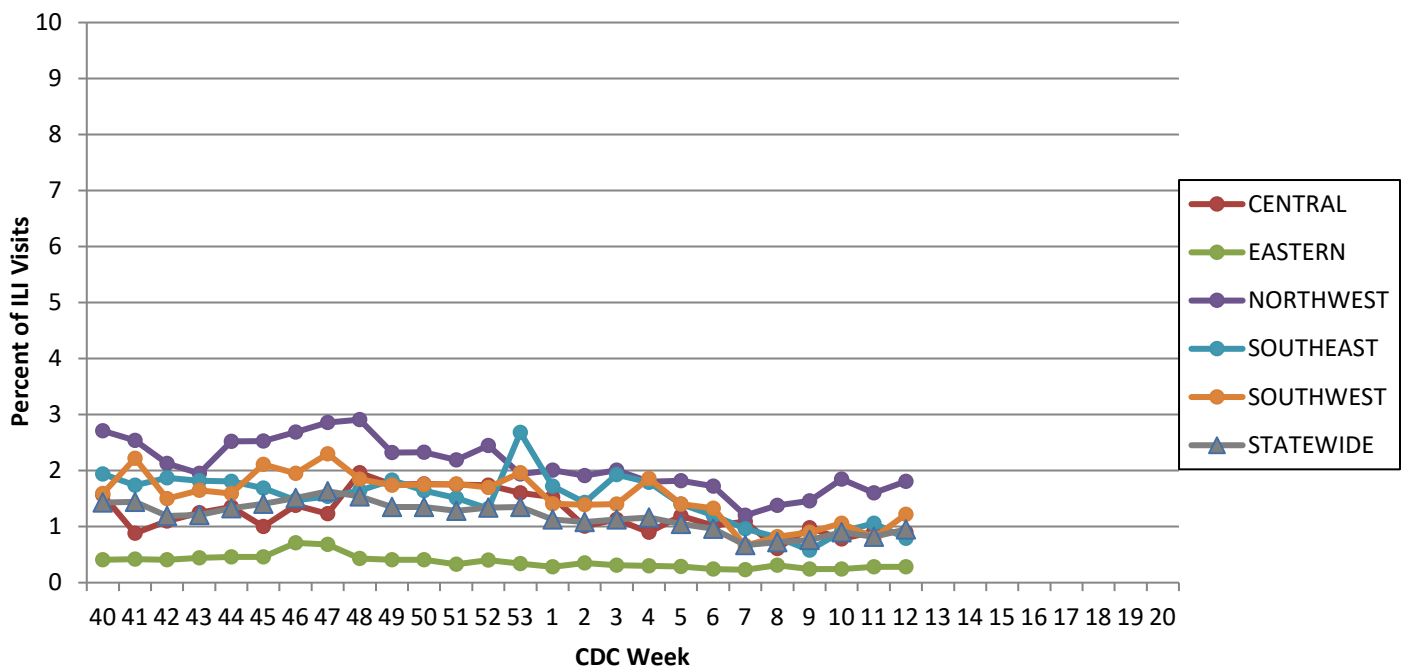
Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 12, 2021*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

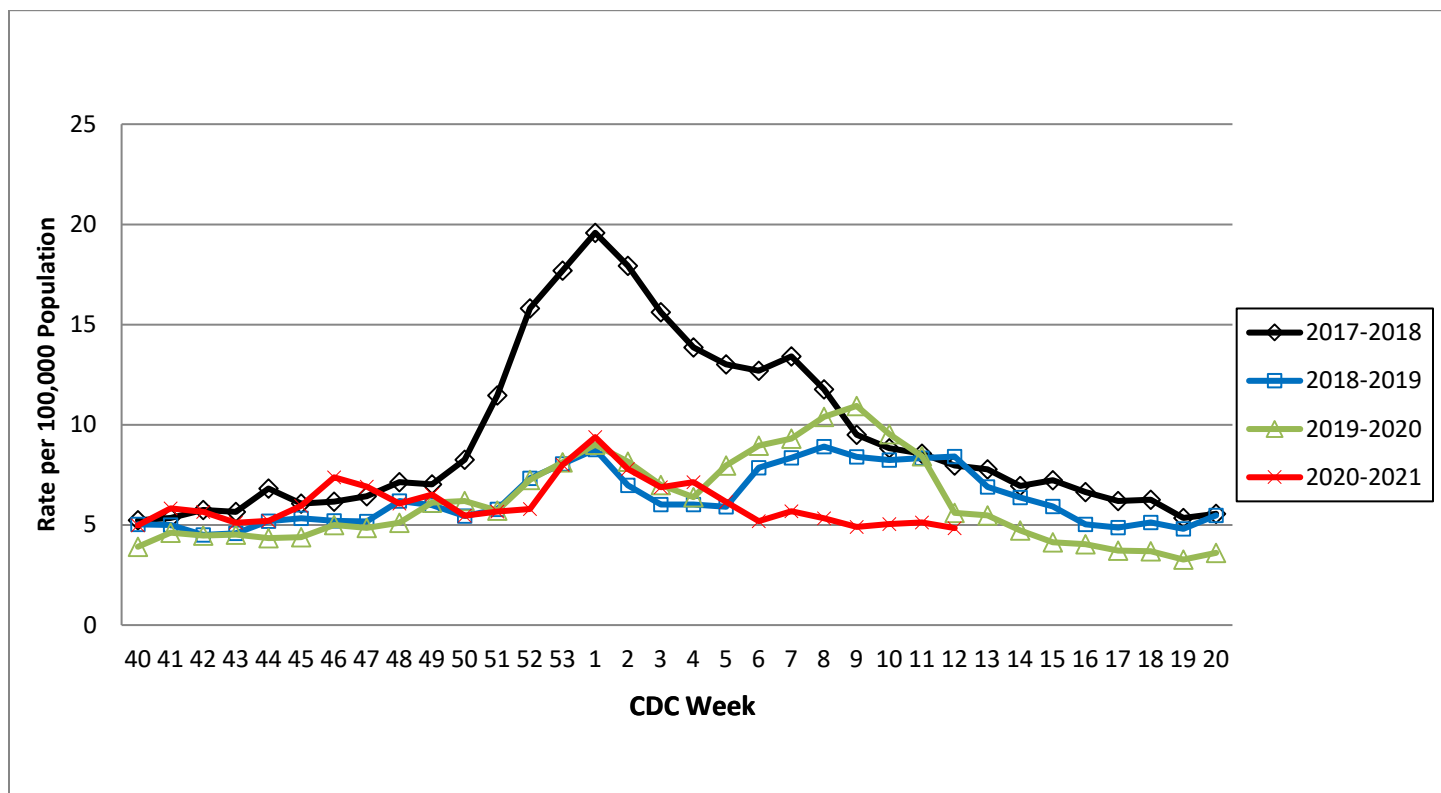
Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons**

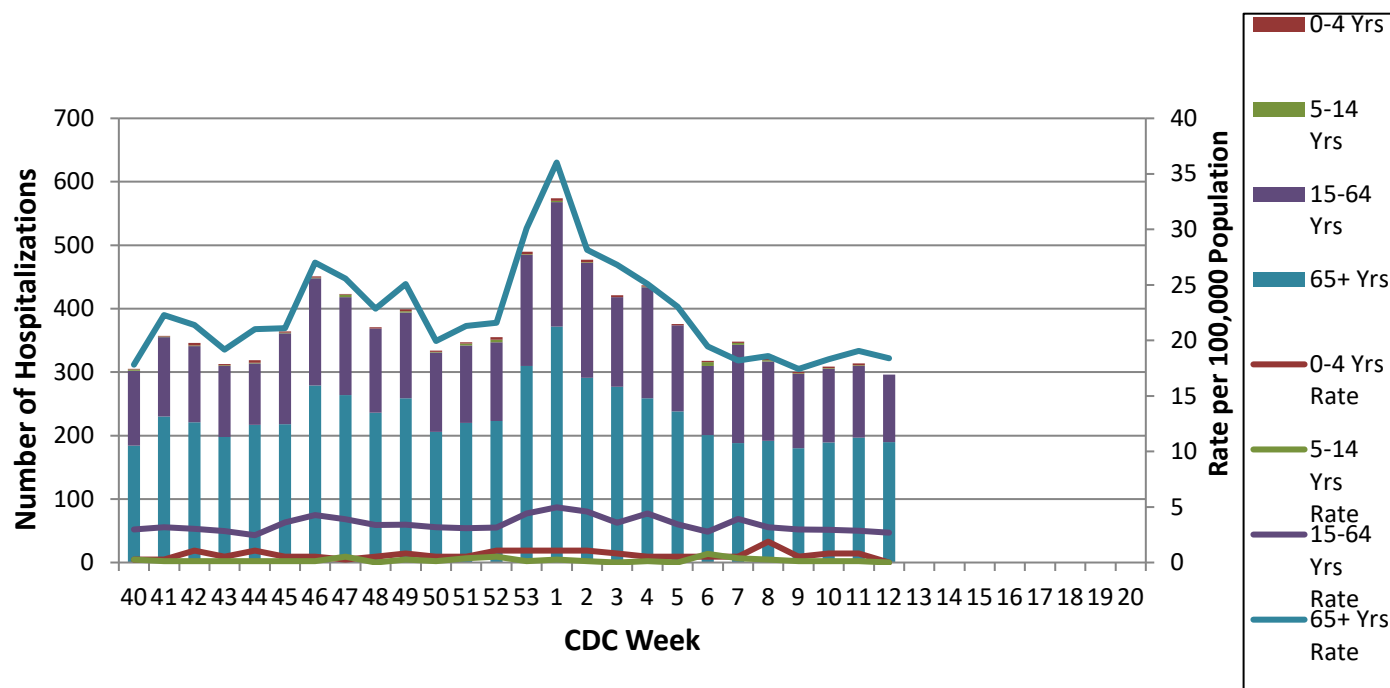


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal. Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 12, 2020-2021 Influenza Season**



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):
<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):
<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 13: March 28, 2021 – April 3, 2021

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 13 a total of 16 laboratory-positive³ influenza cases (8 influenza A and 8 influenza B) were reported. A season-to-date total of 1,596 laboratory-positive influenza cases (701 influenza A, 875 influenza B, and 20 untyped) have been reported in Missouri as of Week 13. The influenza type for cases reported season-to-date includes 43.9 % A, 54.8 % B and 1.3 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 13. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 13 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 0.86 % (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of one influenza-associated death has been reported in Missouri as of Week 13⁵.
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 13.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 13
- Reported Week-specific Rate per 100,000 Population, CDC Week 13
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 11 – 13, March 14, 2021 – April 3, 2021)*

Influenza Type	Week 11	Week 12	Week 13	2020-2021* Season-to-Date
Influenza A	22	10	8	701
Influenza B	14	23	8	875
Influenza Unknown Or Untyped	0	0	0	20
Total	36	33	16	1,596

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 13, March 28 – April 3, 2021)**

Age Group	Week 13 Cases	Week 13 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	1	0.27	165	44.08
05-24	6	0.37	410	25.55
25-49	5	0.26	466	24.35
50-64	2	0.16	283	22.89
65+	2	0.21	272	28.48
Total	16	0.26	1,596	26.23

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 13, March 28 – April 3, 2021)^{}**

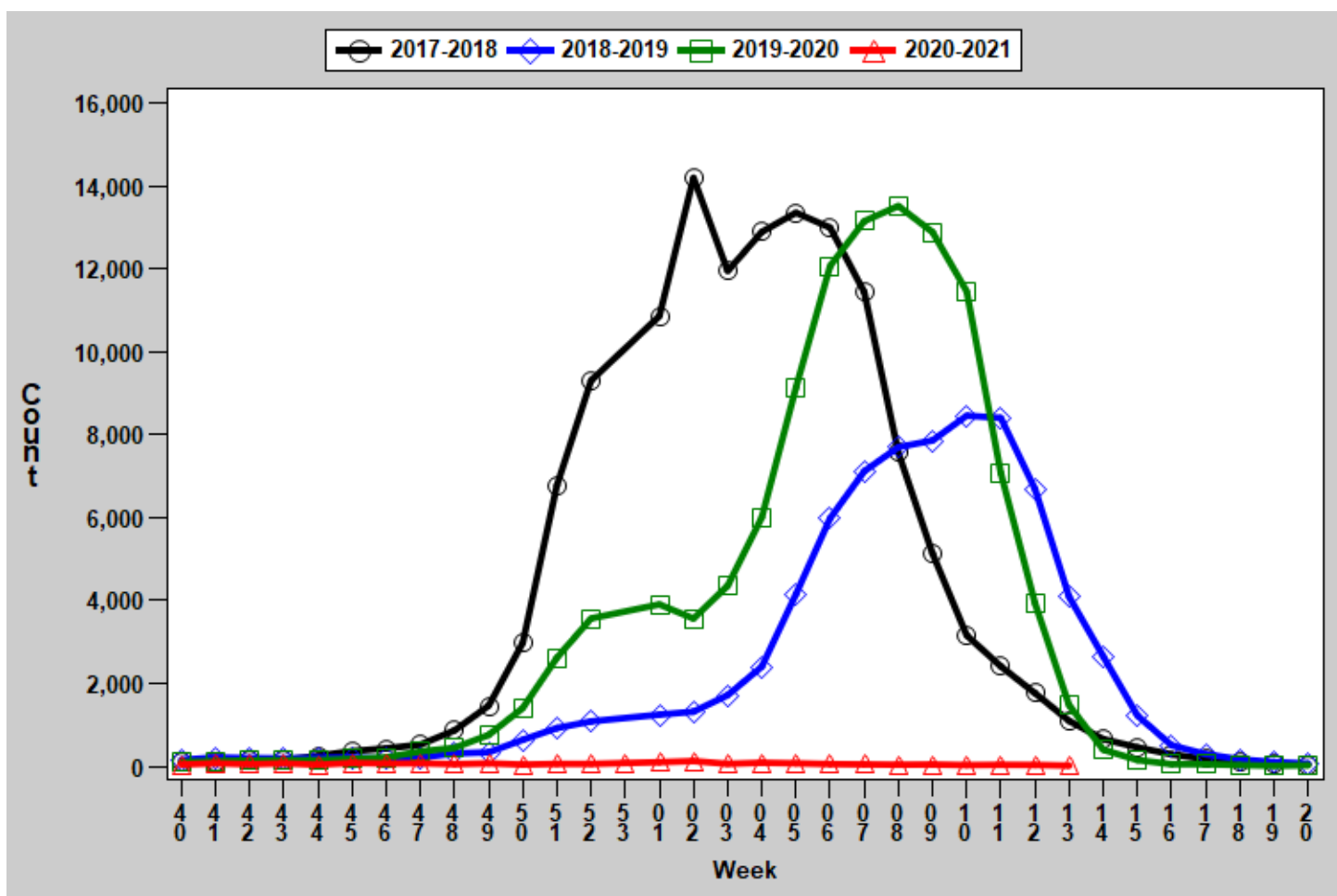
Region	Week 13 Cases	Week 13 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	2	0.30	214	31.61
Eastern	11	0.49	644	28.42
Northwest	0	0.00	199	12.46
Southeast	1	0.21	279	59.15
Southwest	2	0.19	260	24.27
Total	16	0.26	1,596	26.23

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*} Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

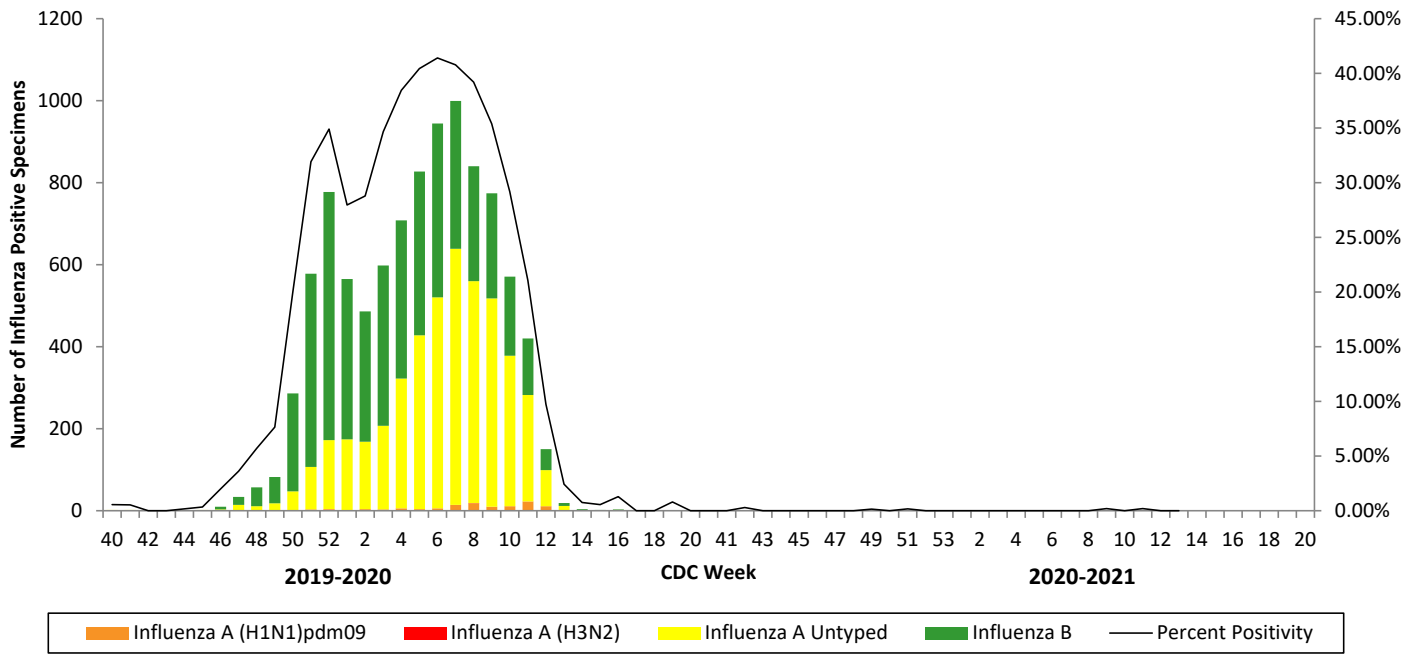
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021^{*}



[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

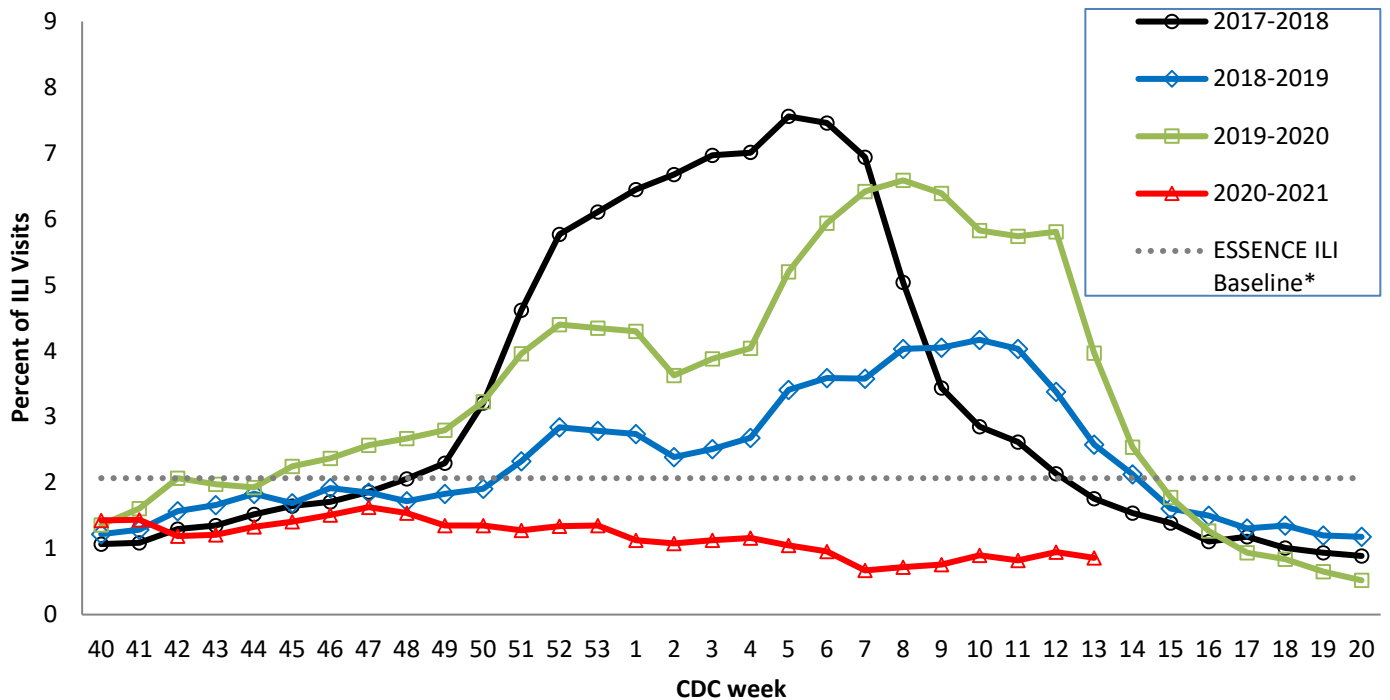
^{*} 2020-2021 season-to-date through the week ending May 22, 2021 (Week 20). Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC). 2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

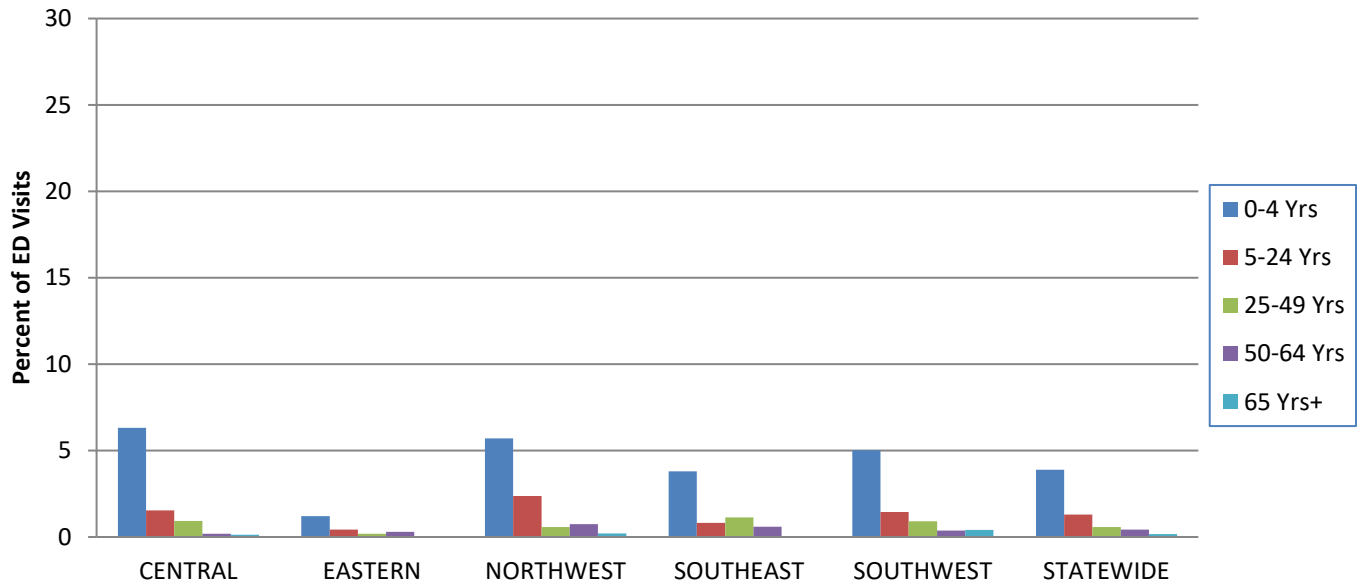


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCE ILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

**There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

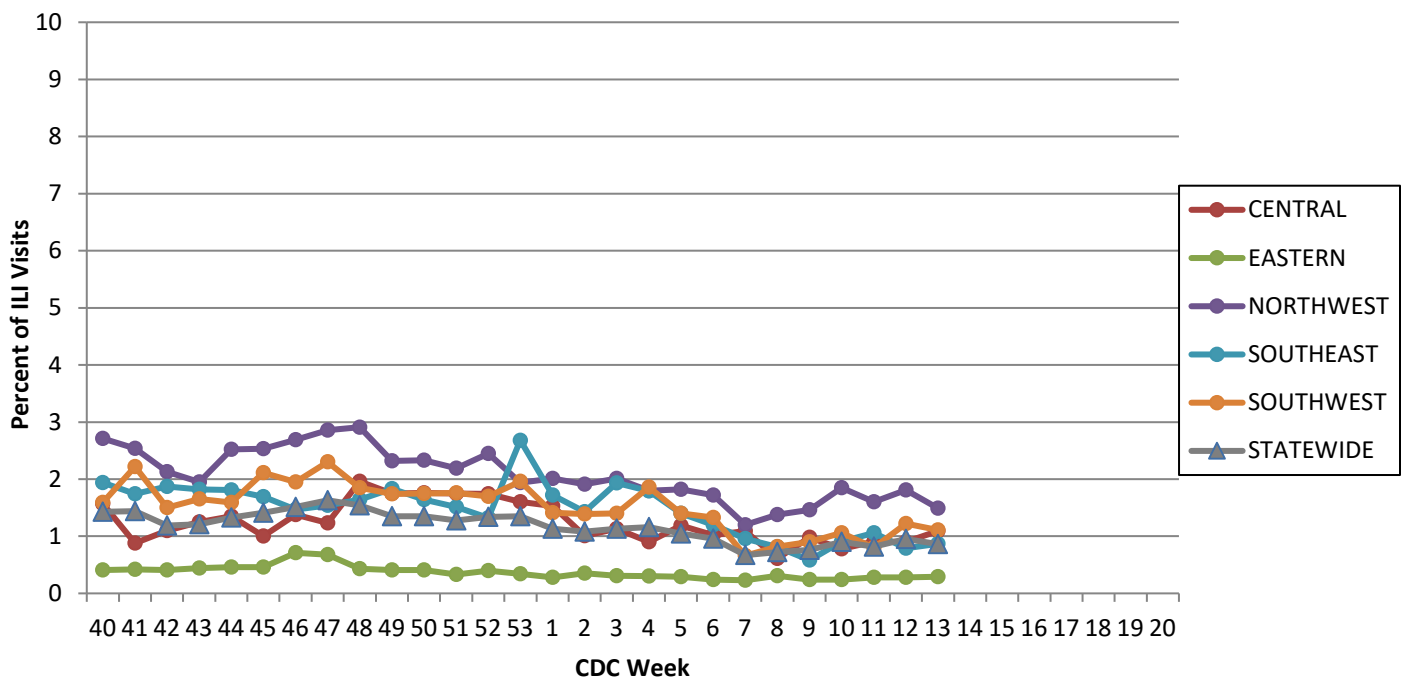
Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 13, 2021*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons**

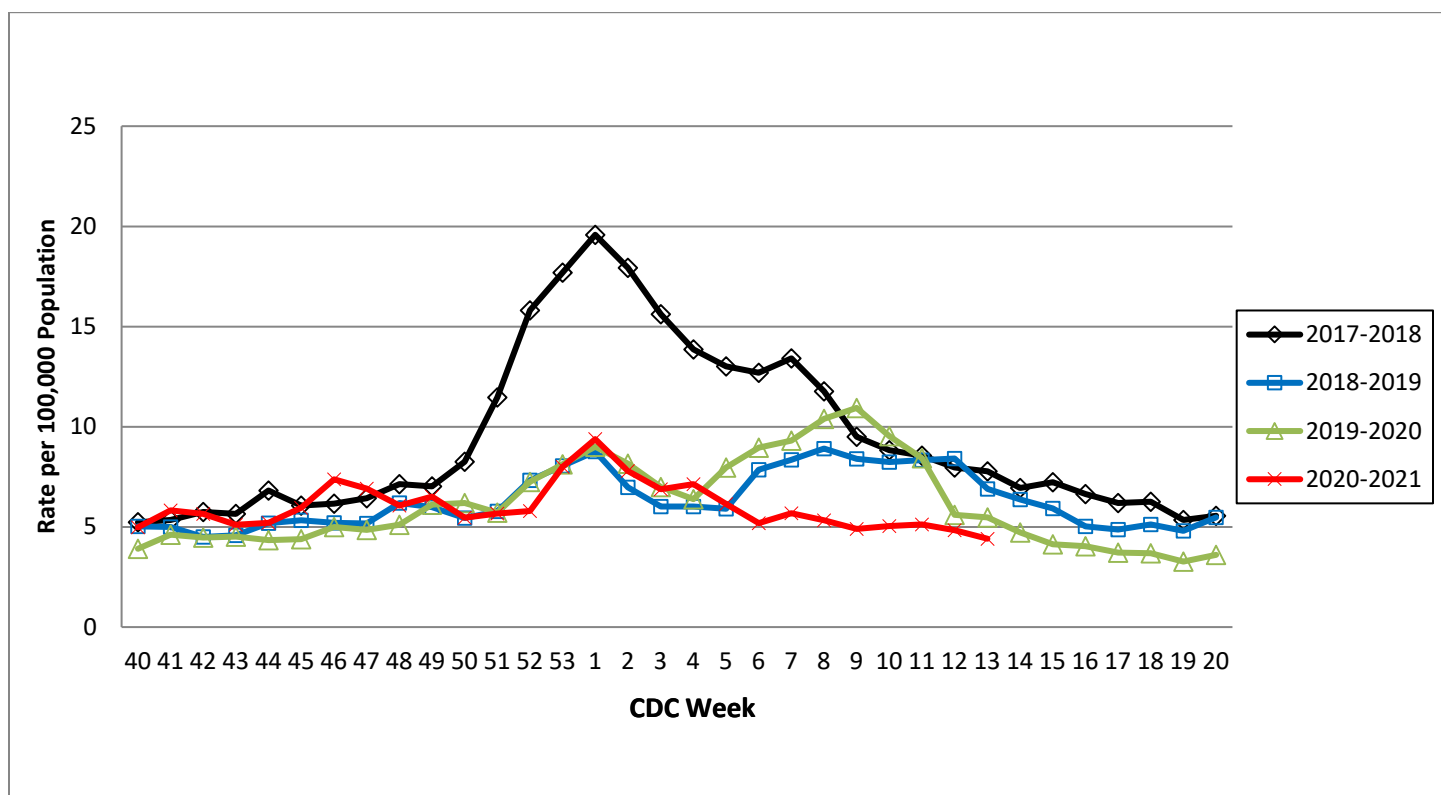
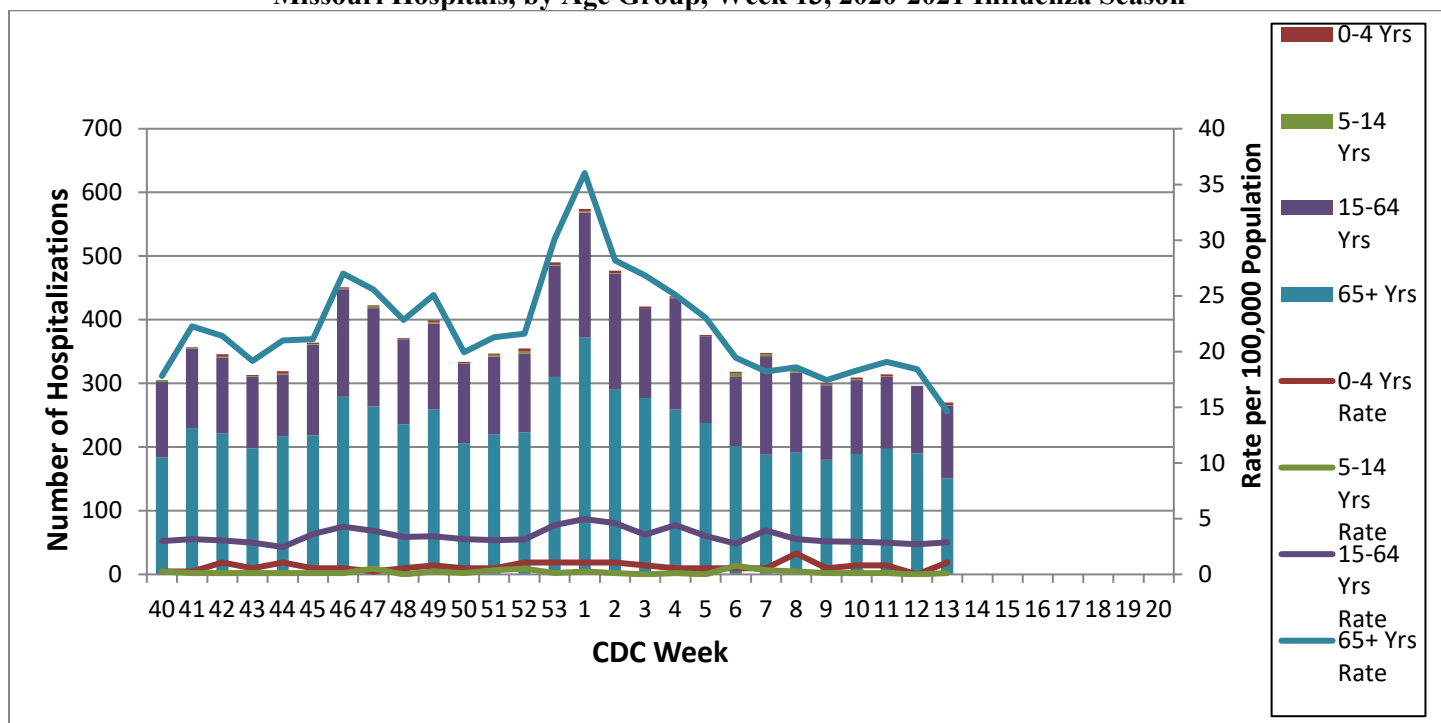


Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 13, 2020-2021 Influenza Season**



Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):
<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):
<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 14: April 4, 2021 – April 10, 2021

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 14 a total of 23 laboratory-positive³ influenza cases (5 influenza A, 17 influenza B and 1 untyped) were reported. A season-to-date total of 1,636 laboratory-positive influenza cases (716 influenza A, 899 influenza B, and 21 untyped) have been reported in Missouri as of Week 14. The influenza type for cases reported season-to-date includes 43.8 % A, 54.9 % B and 1.3 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 14. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 14 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 0.87 % (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of two influenza-associated death have been reported in Missouri as of Week 14⁵.
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 14.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 14
- Reported Week-specific Rate per 100,000 Population, CDC Week 14
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 12 – 14, March 21, 2021 – April 10, 2021)^{*}

Influenza Type	Week 12	Week 13	Week 14	2020-2021* Season-to-Date
Influenza A	10	17	5	716
Influenza B	27	11	17	899
Influenza Unknown Or Untyped	0	0	1	21
Total	37	28	23	1,636

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*} Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 14, April 4 – April 10, 2021)[‡]

Age Group	Week 14 Cases	Week 14 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	6	1.60	174	46.48
05-24	8	0.50	420	26.18
25-49	6	0.31	474	24.77
50-64	2	0.16	291	23.54
65+	1	0.10	277	29.01
Total	23	0.38	1,636	26.89

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*} Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 14, April 4 – April 10, 2021)^{*,‡}

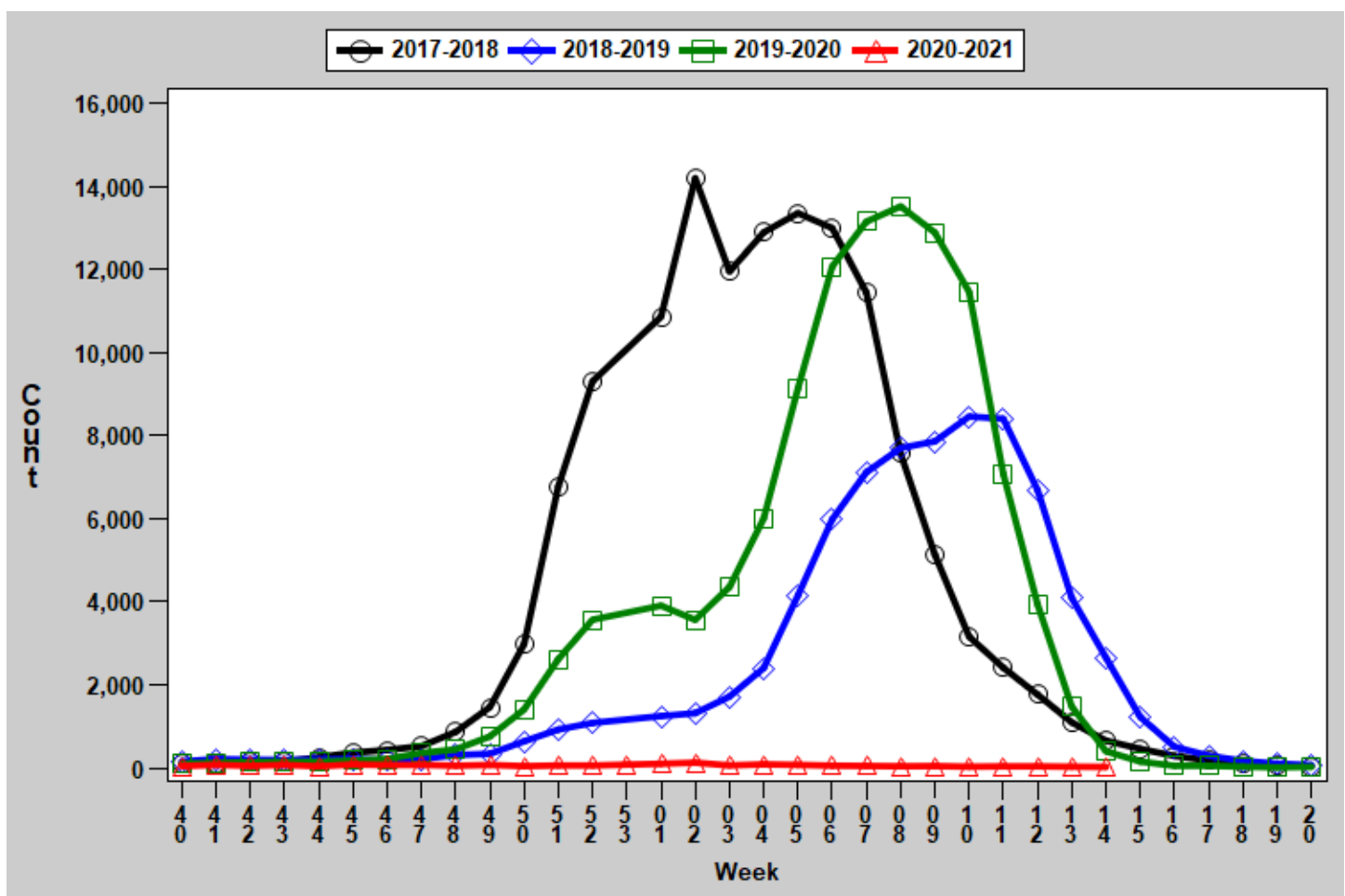
Region	Week 14 Cases	Week 14 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	3	0.44	217	32.05
Eastern	5	0.22	655	28.90
Northwest	10	0.63	214	13.40
Southeast	1	0.21	283	60.00
Southwest	4	0.37	267	24.92
Total	23	0.38	1,636	26.89

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

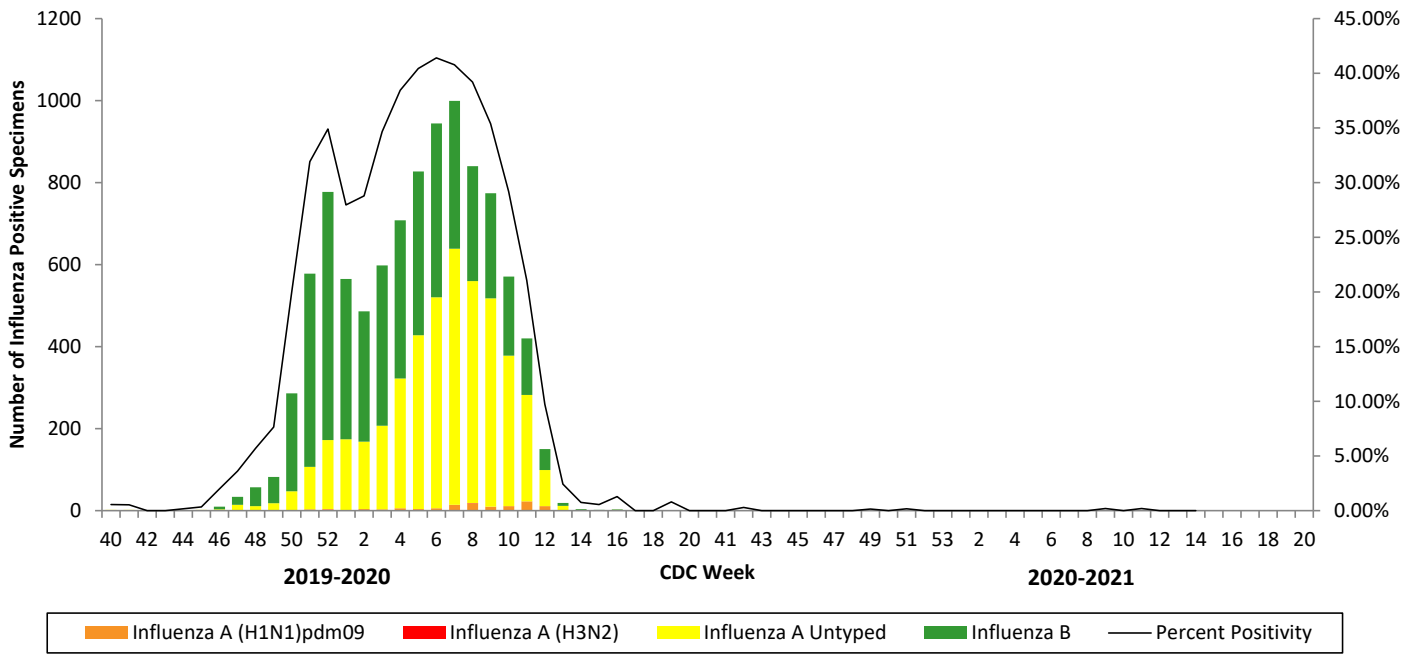
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021*



[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

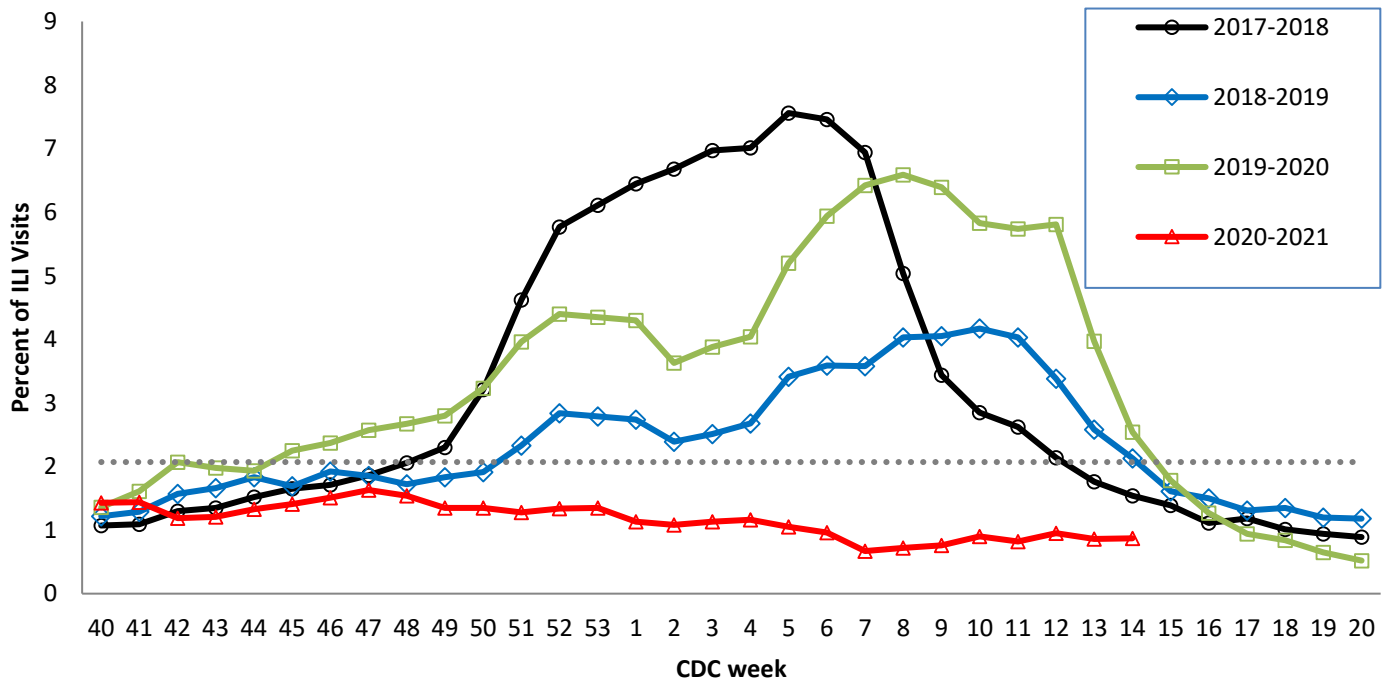
*2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

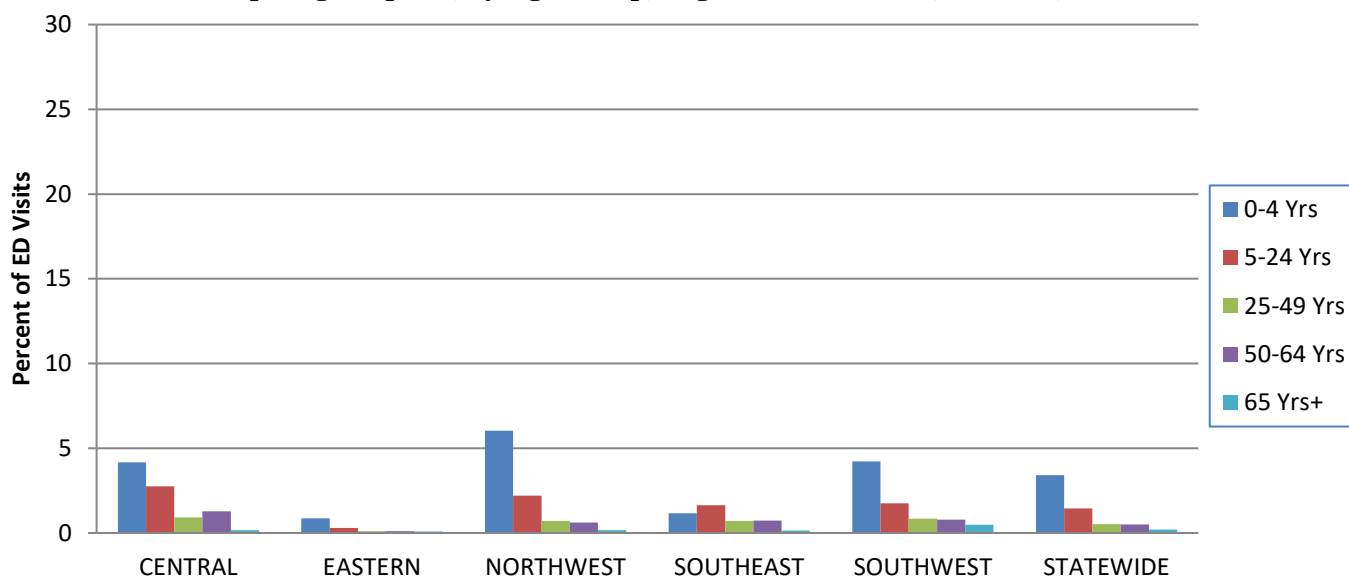


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

*There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

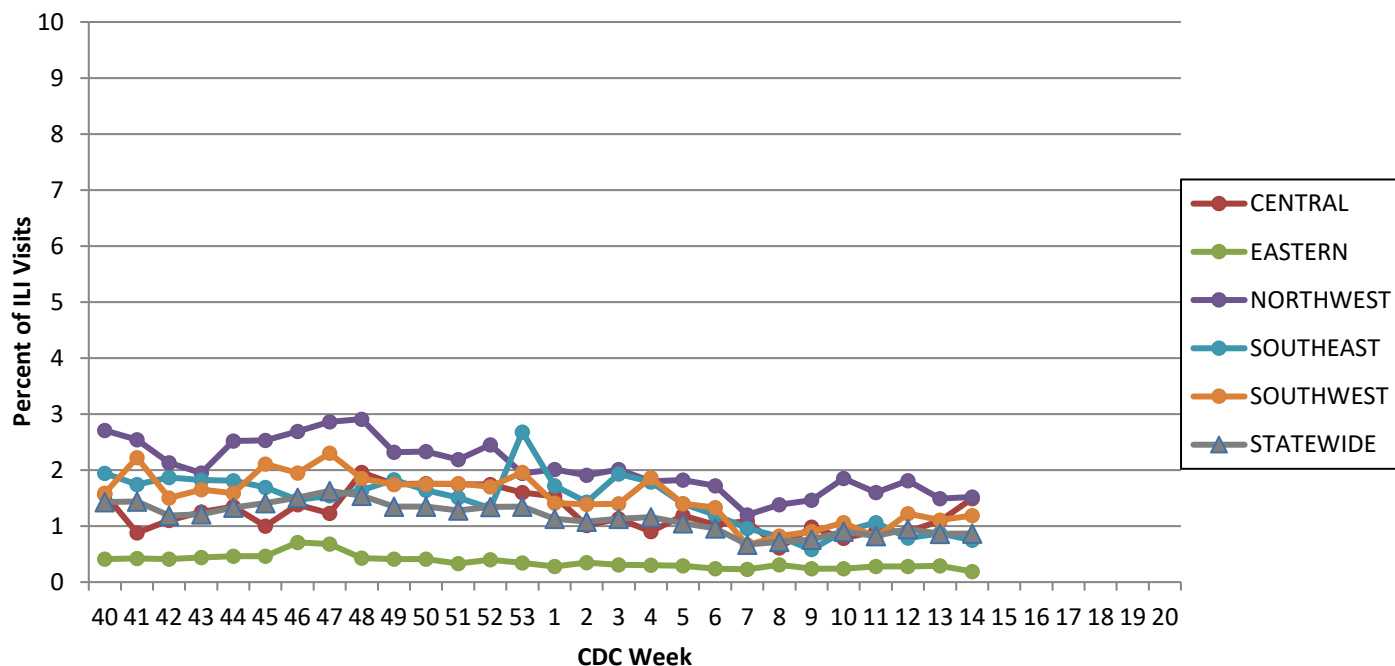
Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 14, 2021*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

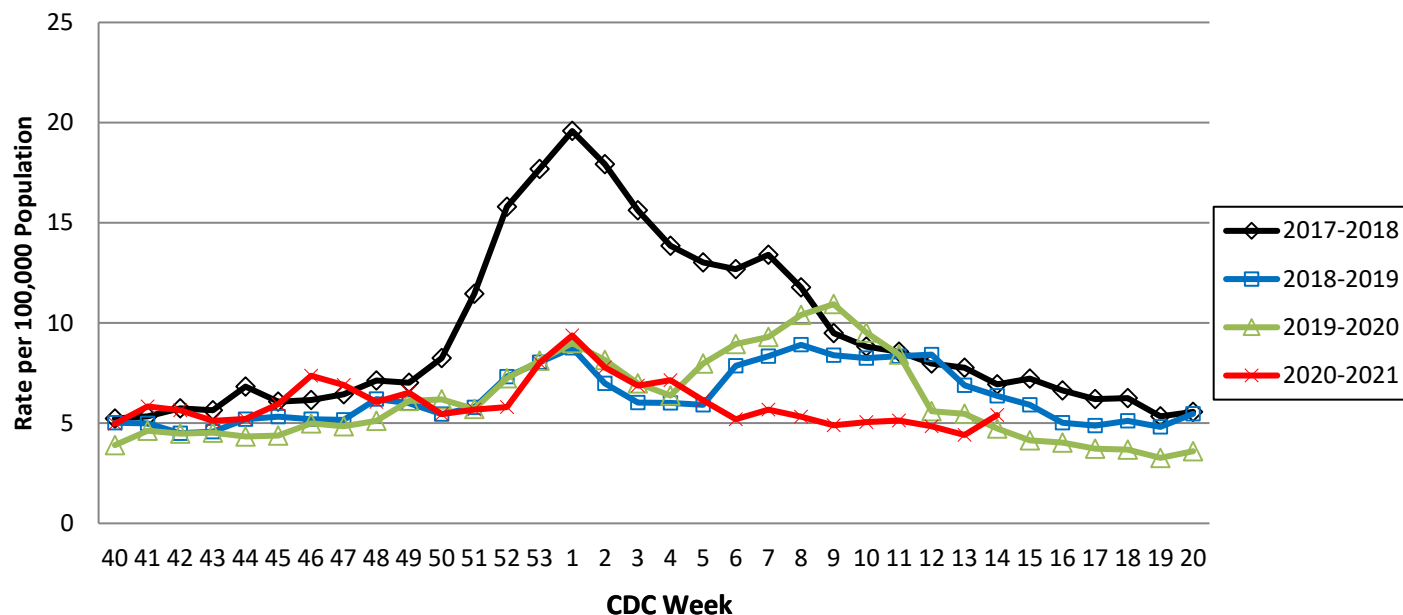
Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons**

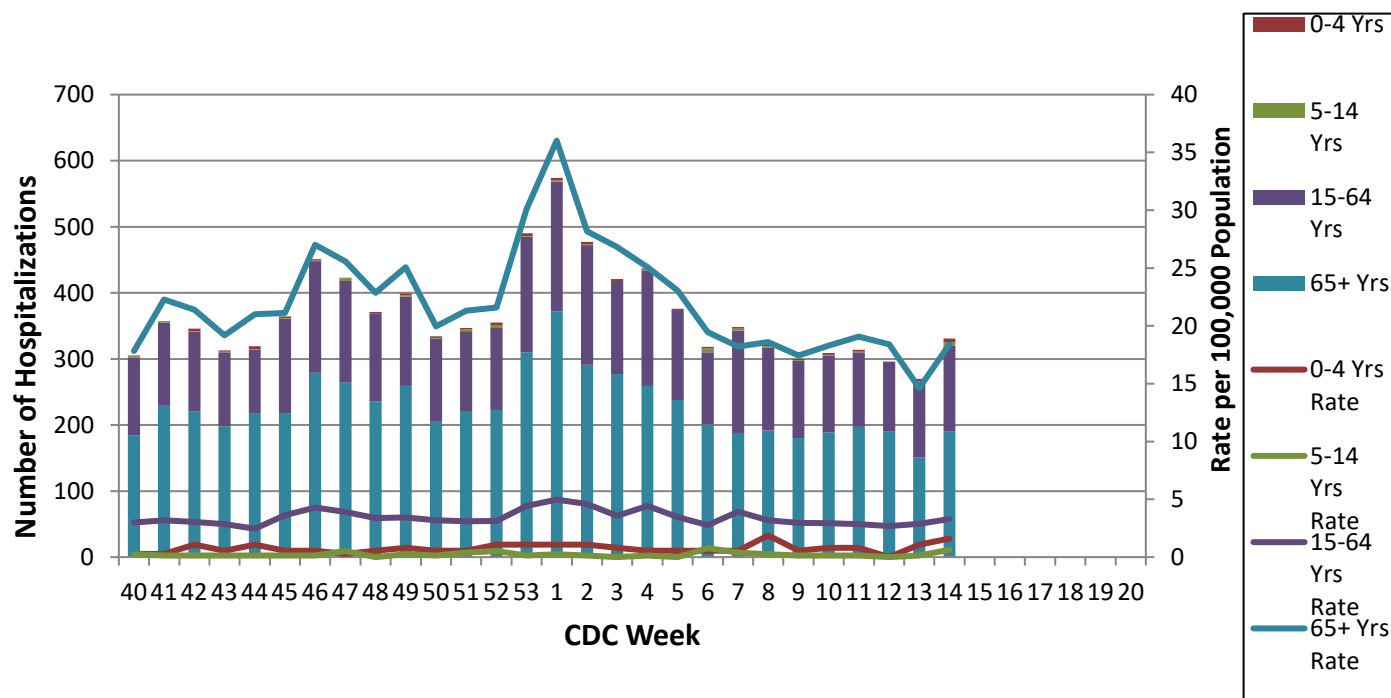


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal. Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 14, 2020-2021 Influenza Season**



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):
<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):
<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 15: April 11, 2021 – April 17, 2021

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 15 a total of 22 laboratory-positive³ influenza cases (14 influenza A, 8 influenza B) were reported. A season-to-date total of 1,661 laboratory-positive influenza cases (731 influenza A, 909 influenza B, and 21 untyped) have been reported in Missouri as of Week 15. The influenza type for cases reported season-to-date includes 44 % A, 54.7 % B and 1.3 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 15. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 15 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 0.96 % (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of two influenza-associated death have been reported in Missouri as of Week 15⁵.
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 15.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 15
- Reported Week-specific Rate per 100,000 Population, CDC Week 15
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 13 – 15, March 28, 2021 – April 17, 2021)*

Influenza Type	Week 13	Week 14	Week 15	2020-2021* Season-to-Date
Influenza A	17	6	14	731
Influenza B	11	18	8	909
Influenza Unknown Or Untyped	0	1	0	21
Total	28	25	22	1,661

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 15, April 11 – April 17, 2021)**

Age Group	Week 15 Cases	Week 15 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	9	2.40	183	48.88
05-24	5	0.31	426	26.55
25-49	5	0.26	479	25.03
50-64	1	0.08	294	23.78
65+	2	0.21	279	29.22
Total	22	0.36	1,661	27.30

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 15, April 11 – April 17, 2021)^{}**

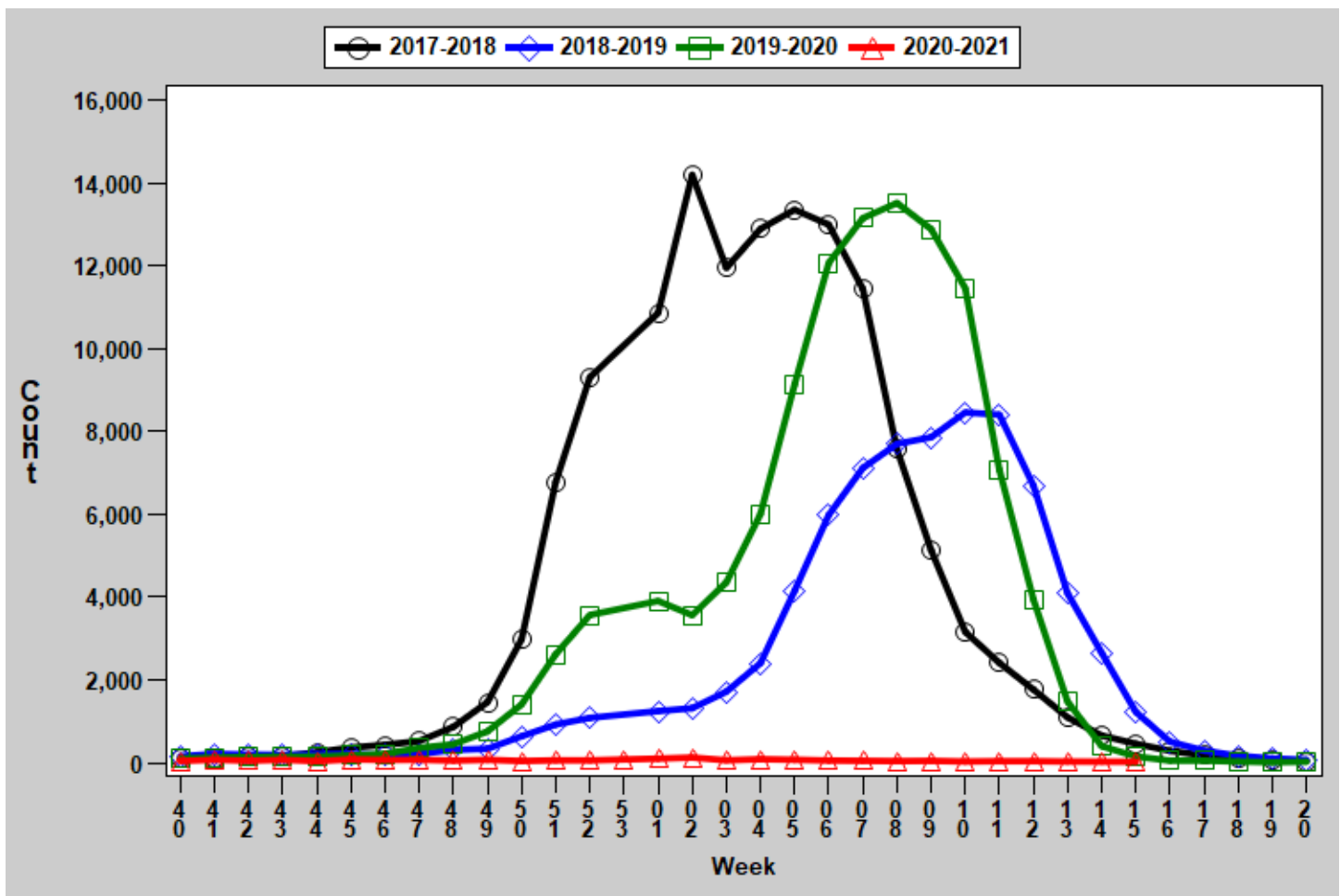
Region	Week 15 Cases	Week 15 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	0	0.00	218	32.20
Eastern	21	0.93	677	29.87
Northwest	0	0.00	214	13.40
Southeast	0	0.00	283	60.00
Southwest	1	0.09	269	25.11
Total	22	0.36	1,661	27.30

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

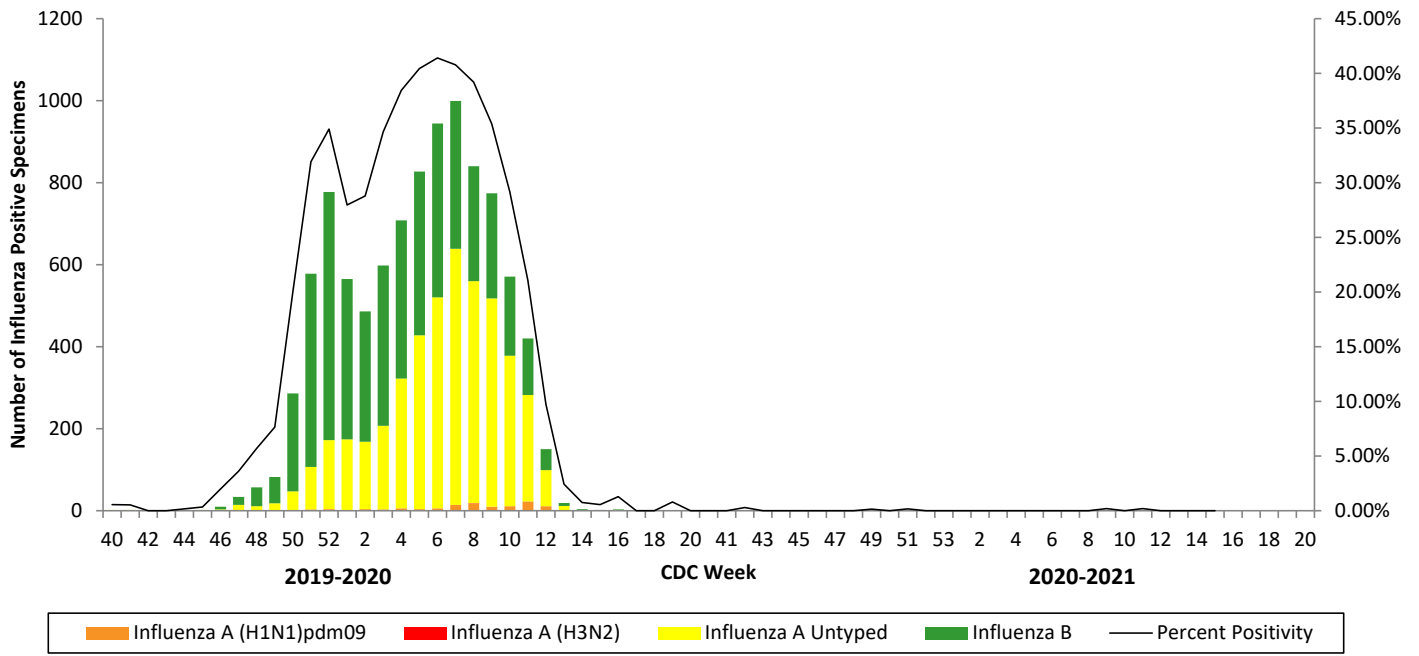
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021^{*}



[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

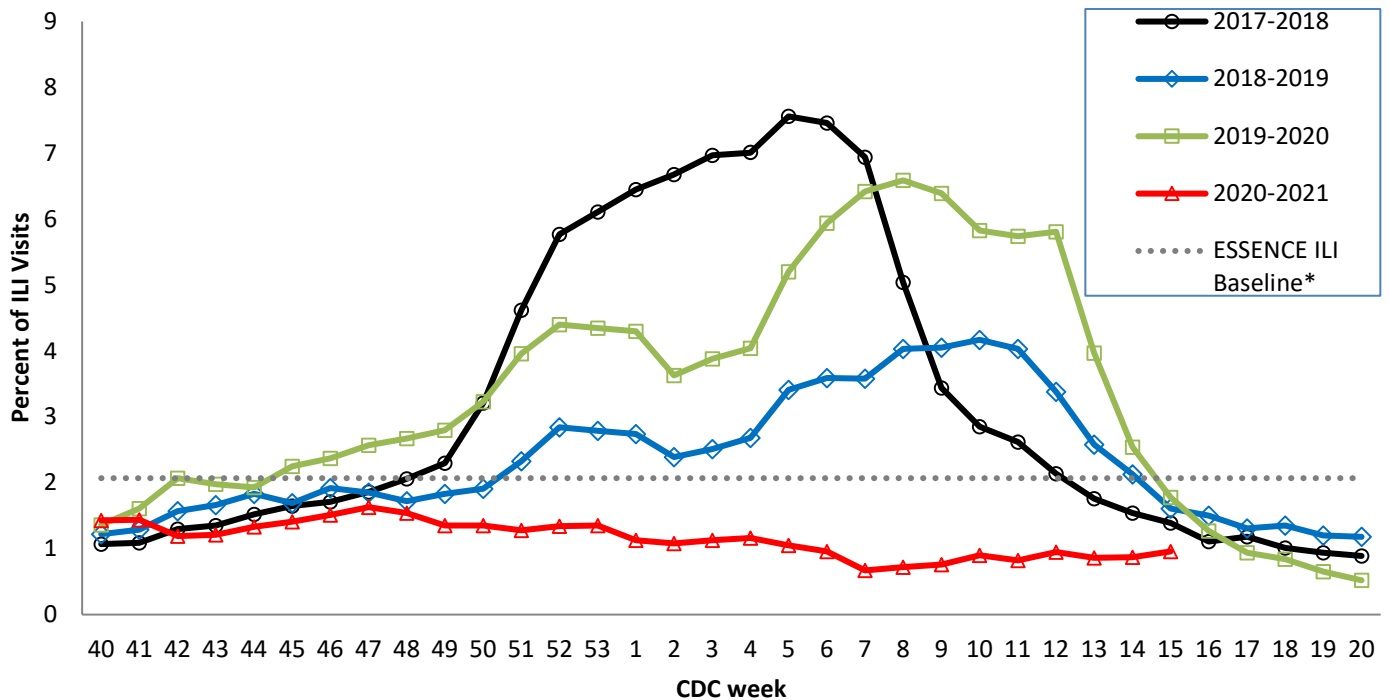
*2020-2021 season-to-date through the week ending May 22, 2021 (Week 20). Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC). 2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

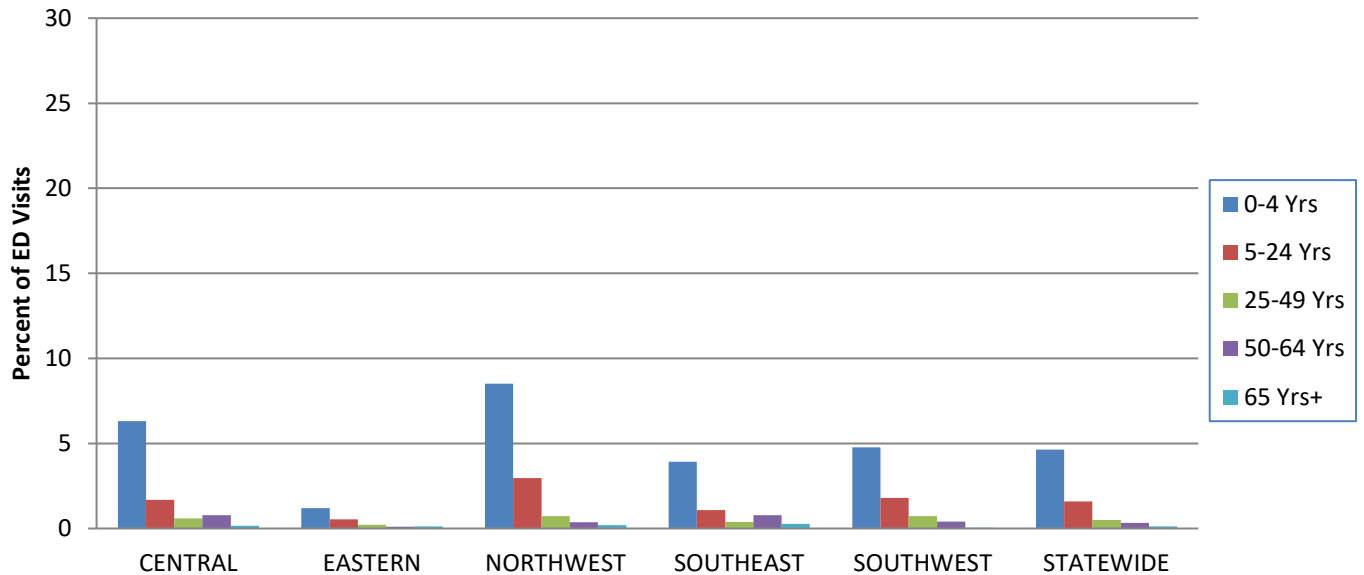


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCE ILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

**There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

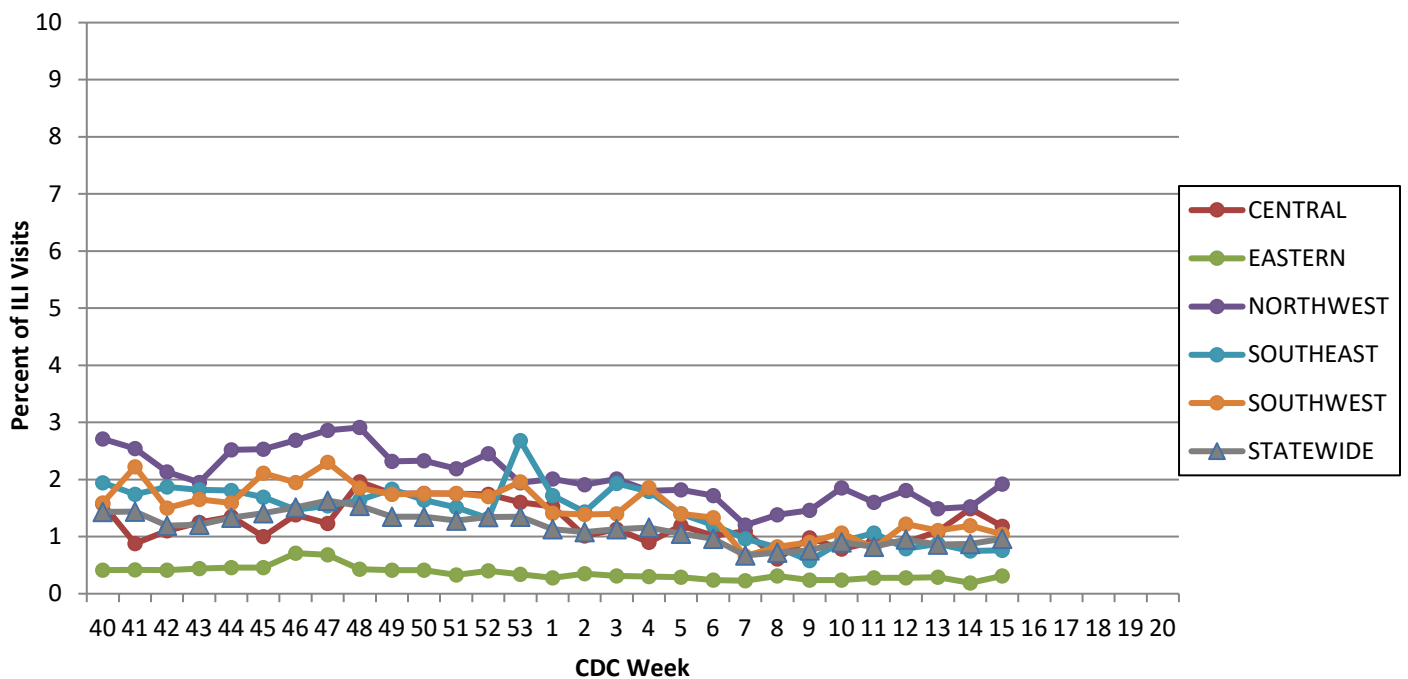
Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 15, 2021*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

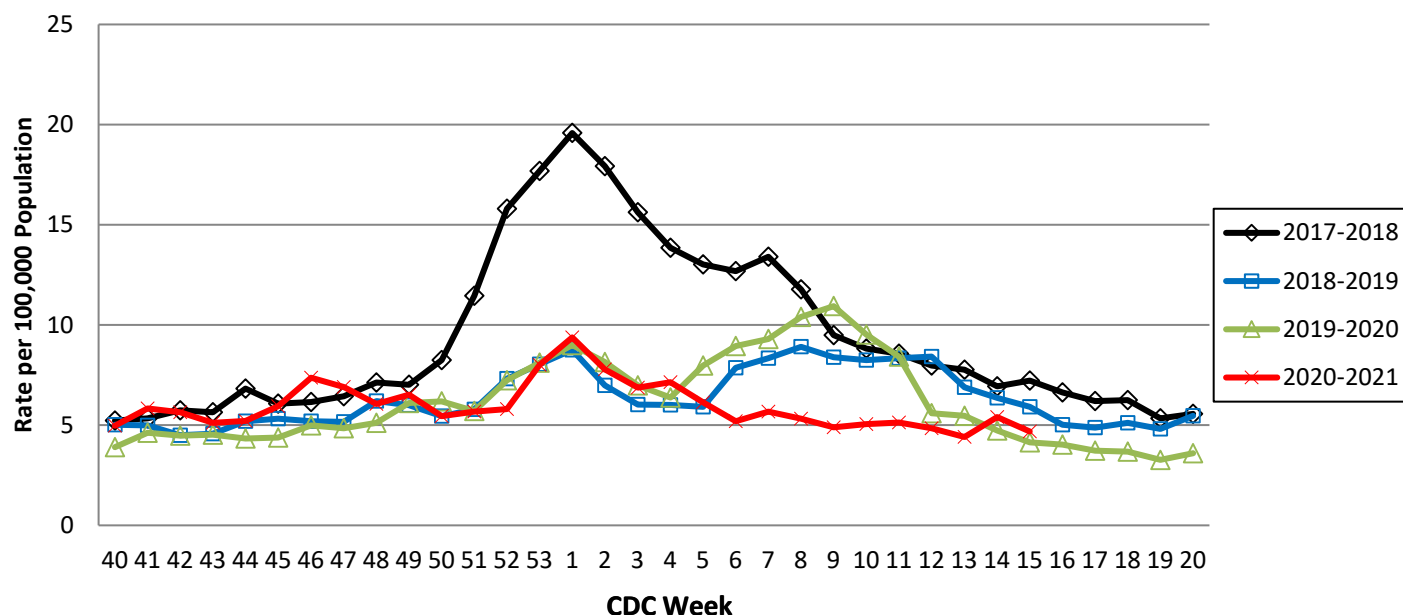
Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons**

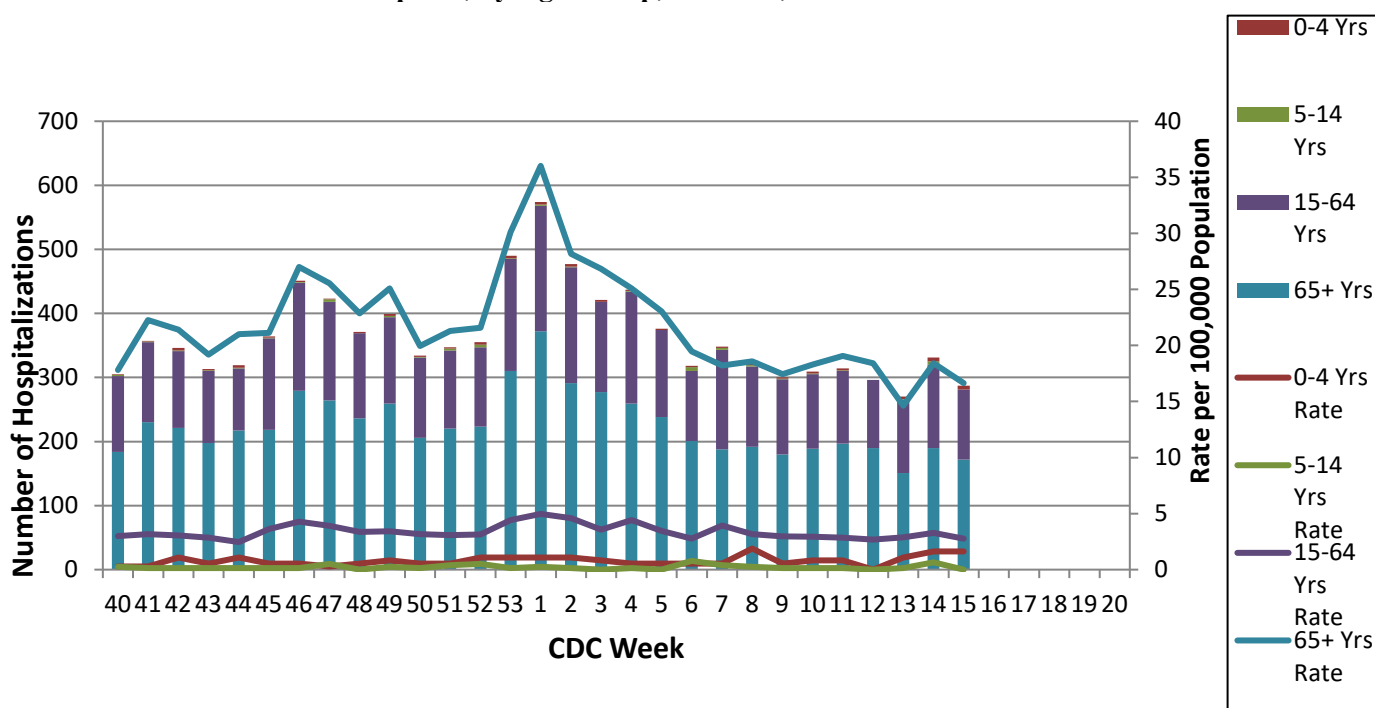


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 15, 2020-2021 Influenza Season**



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):
<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):
<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 16: April 18, 2021 – April 24, 2021

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 16 a total of 12 laboratory-positive³ influenza cases (5 influenza A, 7 influenza B) were reported. A season-to-date total of 1,698 laboratory-positive influenza cases (745 influenza A, 932 influenza B, and 21 untyped) have been reported in Missouri as of Week 16. The influenza type for cases reported season-to-date includes 43.9 % A, 54.9 % B and 1.2 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 16. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 16 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 1.13 % (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of two influenza-associated death have been reported in Missouri as of Week 16⁵.
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 16.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 16
- Reported Week-specific Rate per 100,000 Population, CDC Week 16
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 114 – 16, April 4, 2021 – April 24, 2021)*

Influenza Type	Week 14	Week 15	Week 16	2020-2021* Season-to-Date
Influenza A	8	15	5	745
Influenza B	18	16	7	932
Influenza Unknown Or Untyped	1	0	0	21
Total	27	31	12	1,698

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 16, April 18 – April 24, 2021)*[‡]

Age Group	Week 16 Cases	Week 16 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	2	0.53	189	50.49
05-24	5	0.31	436	27.17
25-49	2	0.10	488	25.50
50-64	2	0.16	301	24.35
65+	1	0.10	284	29.74
Total	12	0.20	1,698	27.91

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 16, (April 18 – April 24, 2021)^{*,‡}

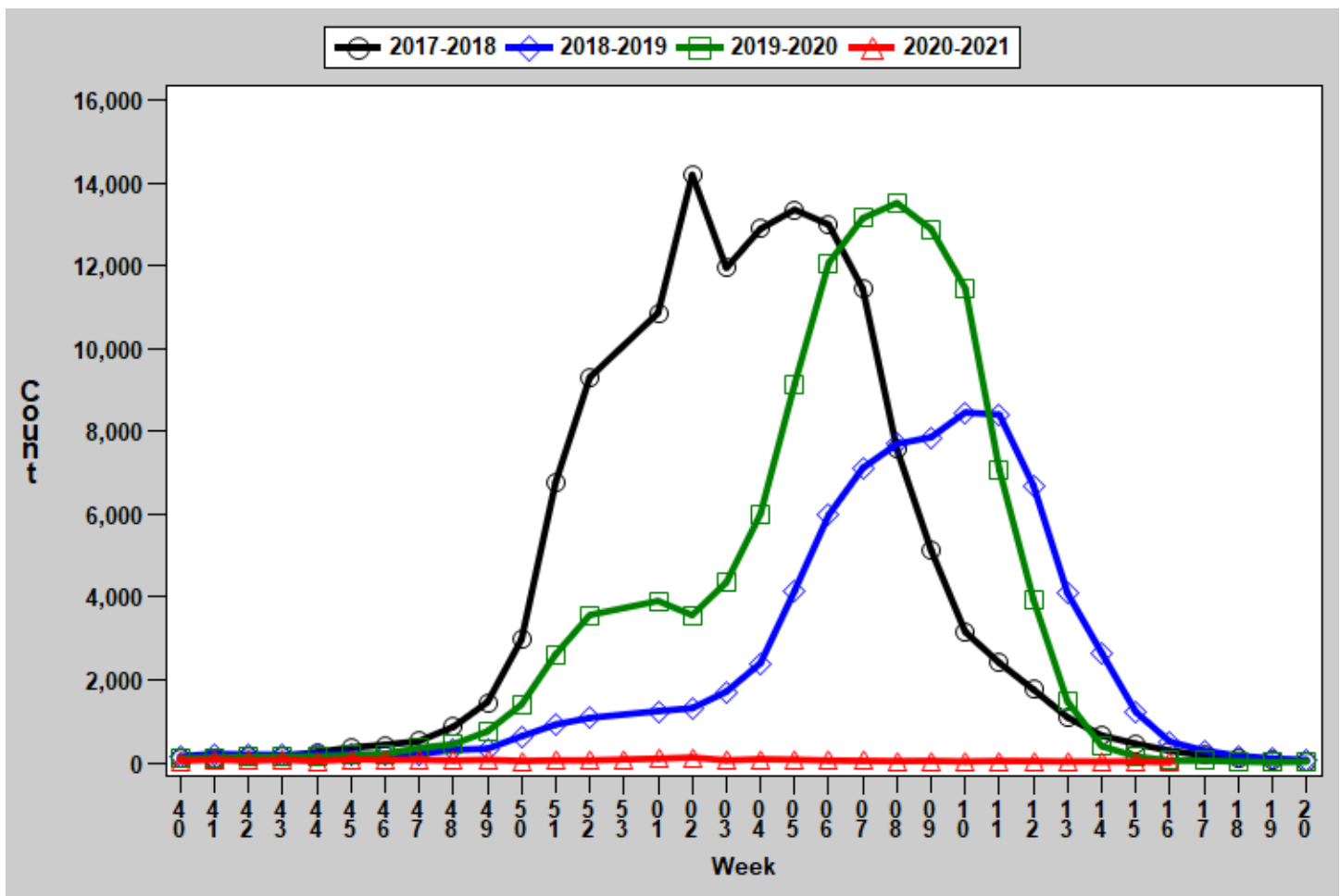
Region	Week 16 Cases	Week 16 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	3	0.44	223	32.94
Eastern	2	0.09	686	30.27
Northwest	0	0.00	216	13.52
Southeast	4	0.85	287	60.84
Southwest	3	0.28	286	26.70
Total	12	0.20	1,698	27.91

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*}Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

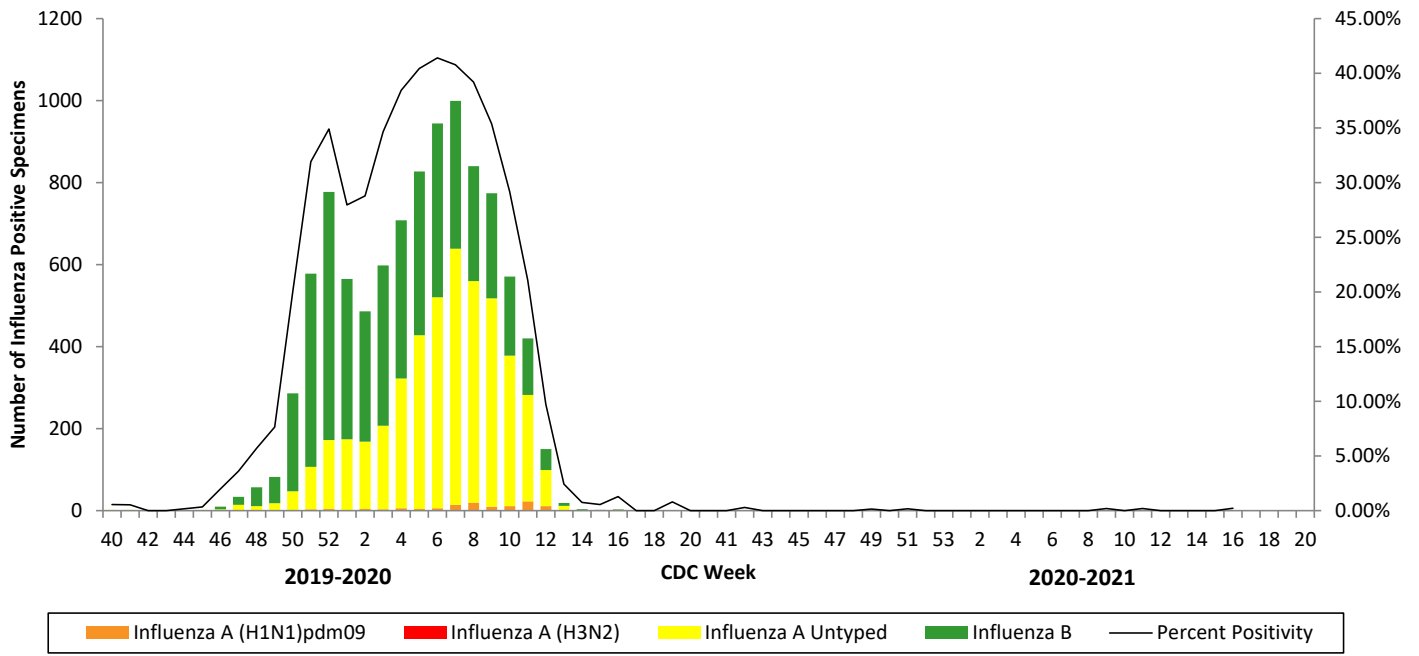
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021^{*}



[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

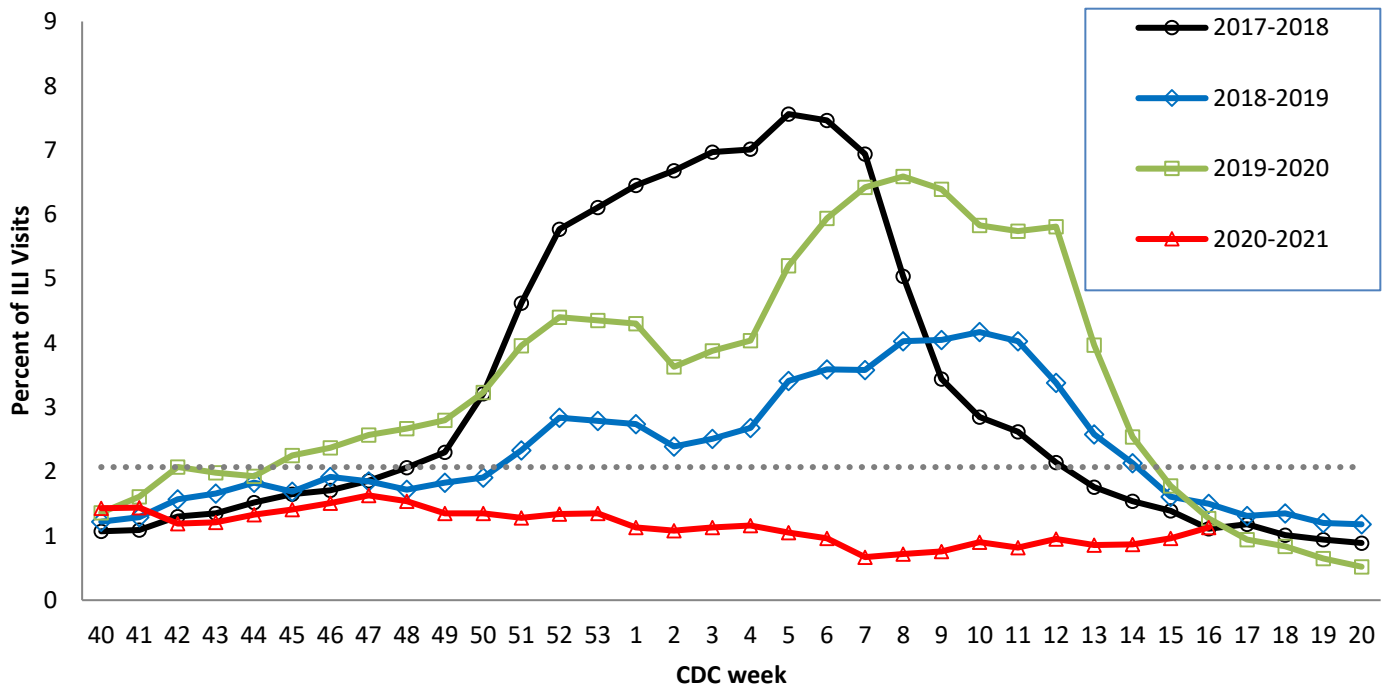
^{*}2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

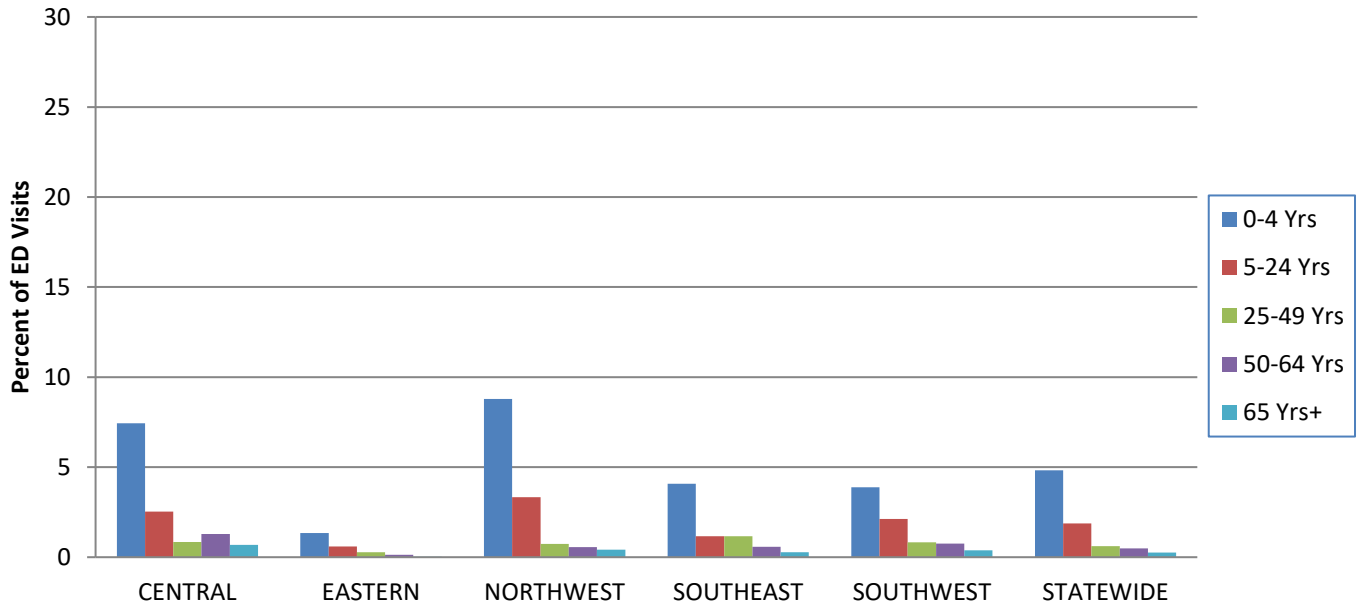


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

*There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

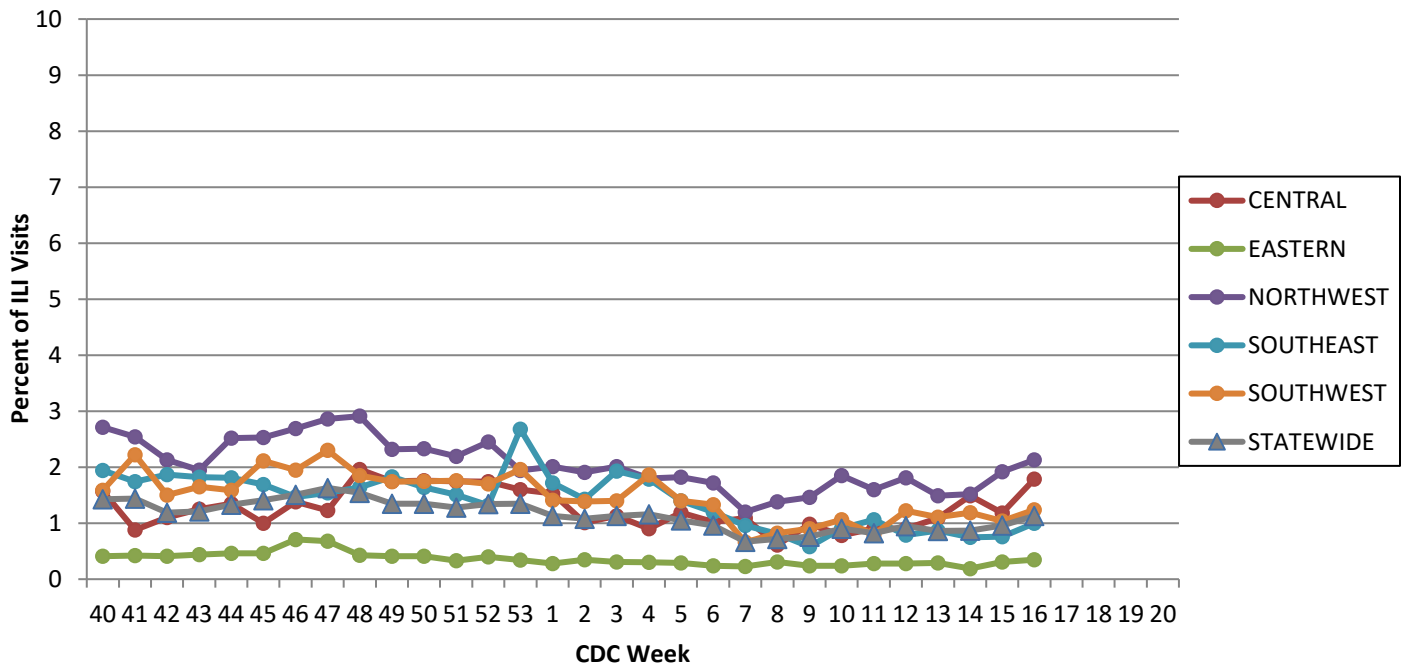
Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 16, 2021*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

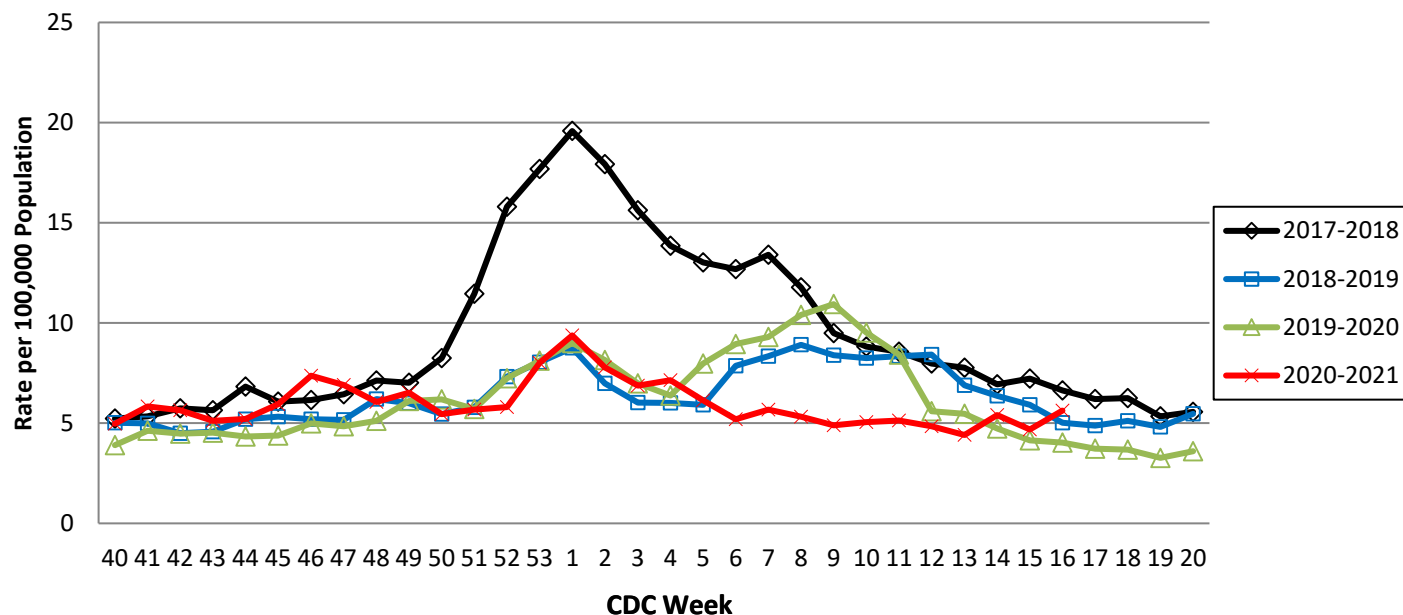
Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons**

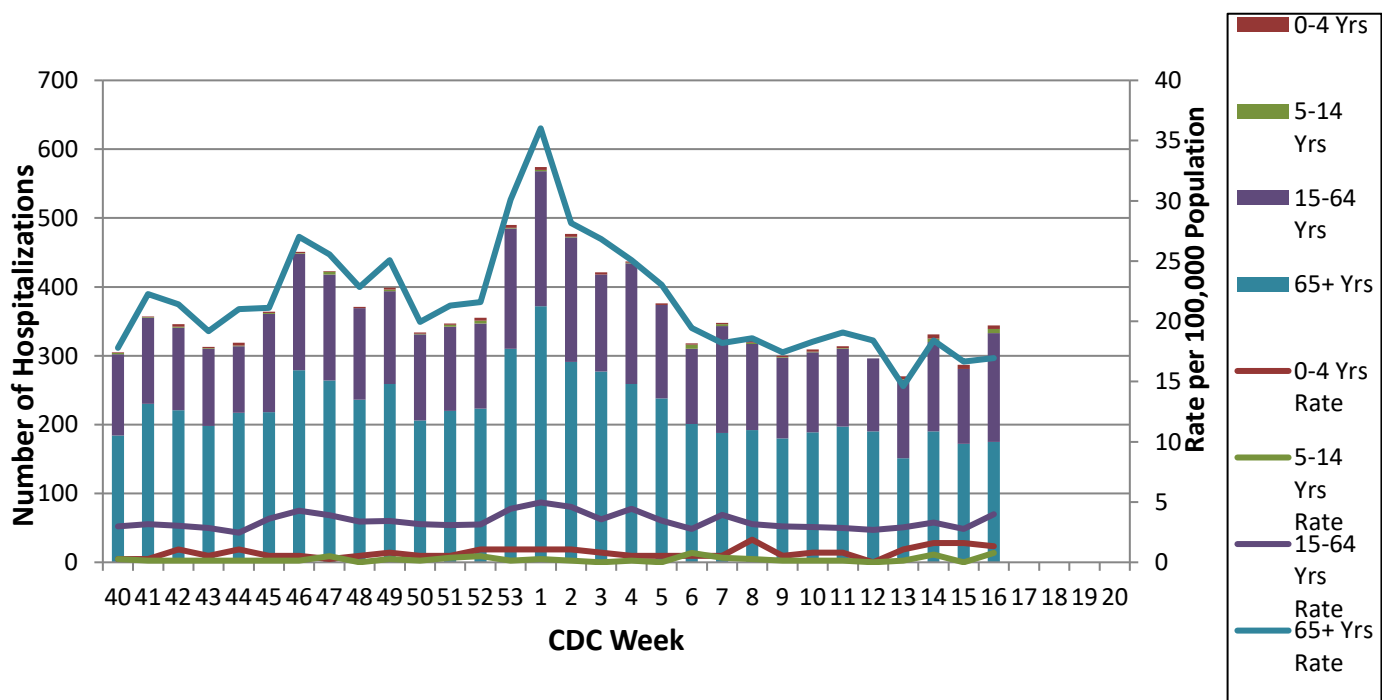


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 16, 2020-2021 Influenza Season**



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):
<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):
<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 17: April 25, 2021 – May 1, 2021

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 17 a total of 11 laboratory-positive³ influenza cases (3 influenza A, 8 influenza B) were reported. A season-to-date total of 1,721 laboratory-positive influenza cases (751 influenza A, 949 influenza B, and 21 untyped) have been reported in Missouri as of Week 17. The influenza type for cases reported season-to-date includes 43.7 % A, 55.1 % B and 1.2 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 17. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 17 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 1.12 % (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of 2 influenza-associated death have been reported in Missouri as of Week 17⁵.
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 17.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 17
- Reported Week-specific Rate per 100,000 Population, CDC Week 17
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 15 – 17, April 11, 2021 – May 1, 2021)*

Influenza Type	Week 15	Week 16	Week 17	2020-2021* Season-to-Date
Influenza A	15	7	3	751
Influenza B	17	8	8	949
Influenza Unknown Or Untyped	0	0	0	21
Total	32	15	11	1,721

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 17, April 25 – May 1, 2021)*[‡]

Age Group	Week 17 Cases	Week 17 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	3	0.80	194	51.82
05-24	2	0.12	440	27.42
25-49	5	0.26	498	26.03
50-64	0	0.00	304	24.59
65+	1	0.10	285	29.85
Total	11	0.18	1,721	28.29

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 17 (April 25 – May 1, 2021)^{*‡}

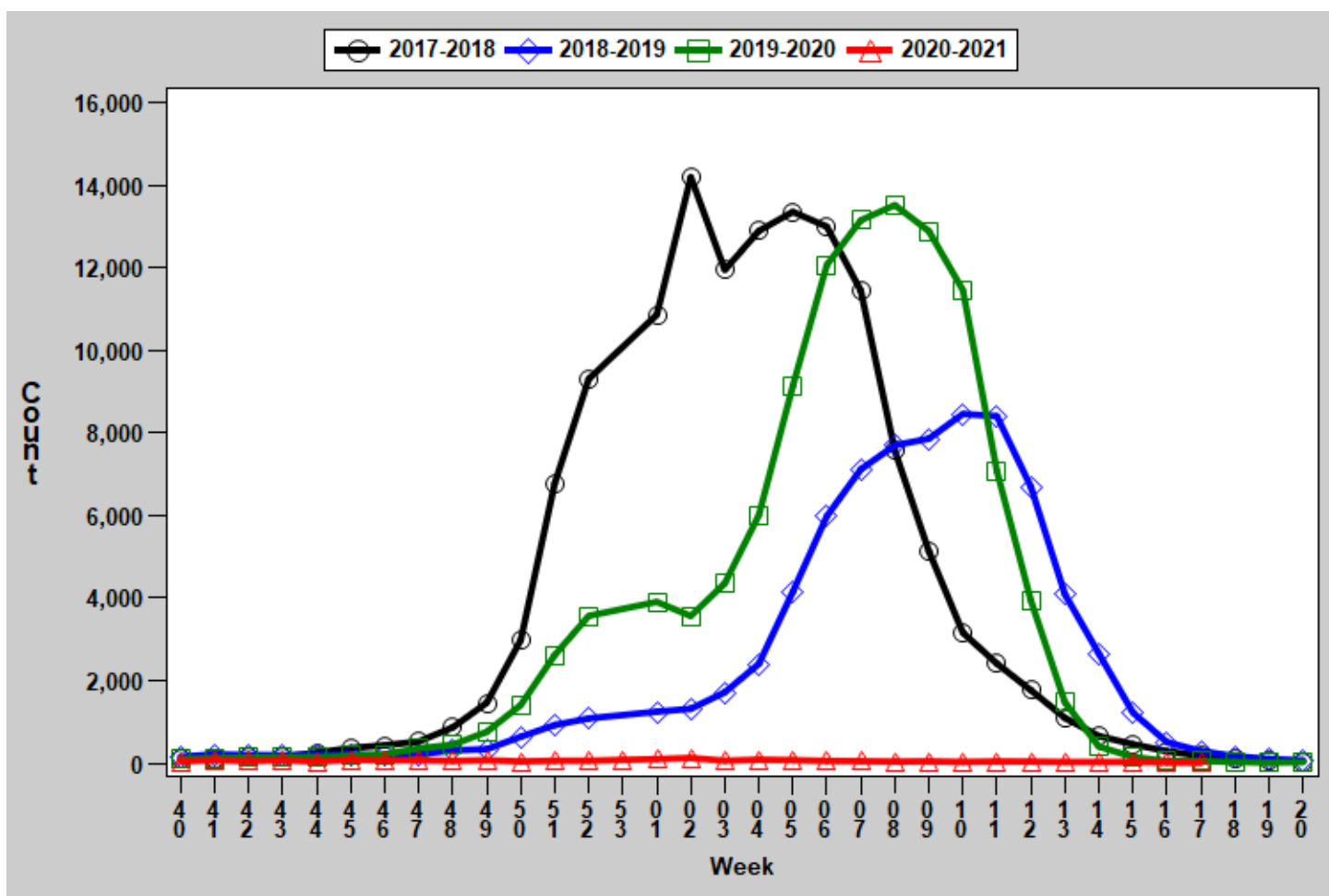
Region	Week 17 Cases	Week 17 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	3	0.44	227	33.53
Eastern	3	0.13	695	30.67
Northwest	2	0.13	221	13.83
Southeast	1	0.21	288	61.06
Southwest	2	0.19	290	27.07
Total	11	0.18	1,721	28.29

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*} Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

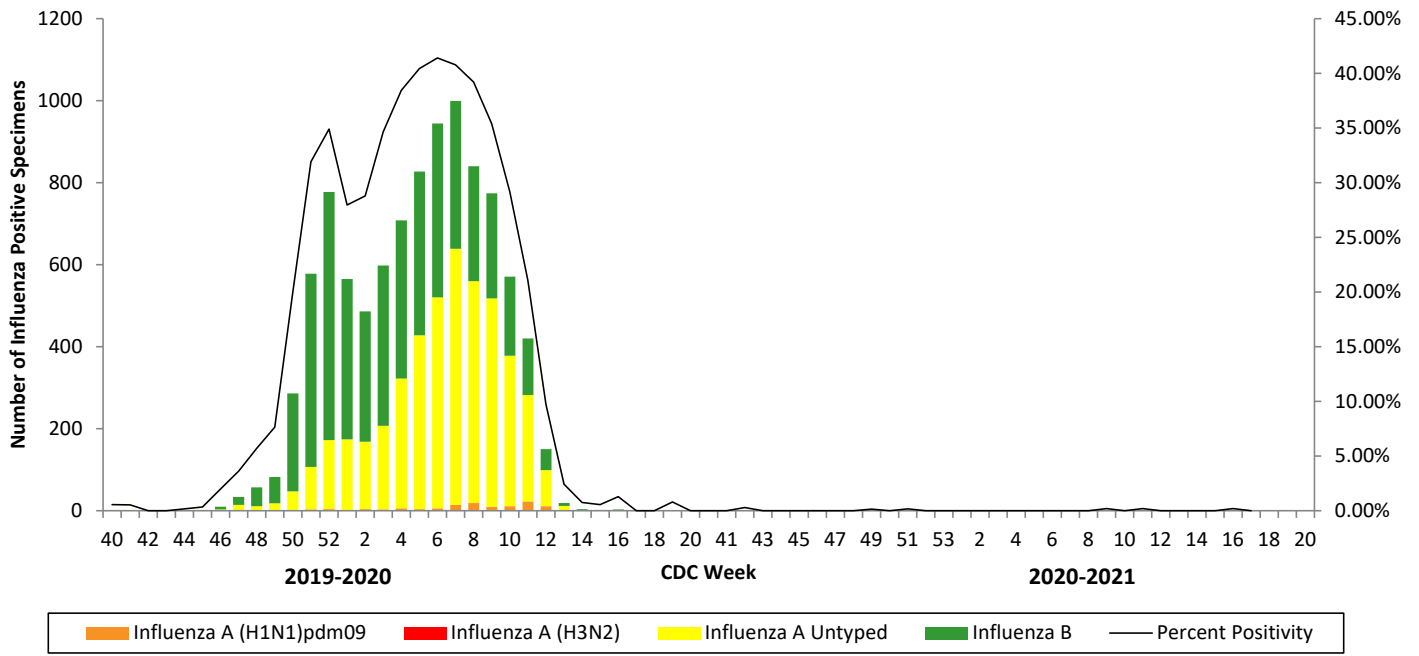
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021^{*}



[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

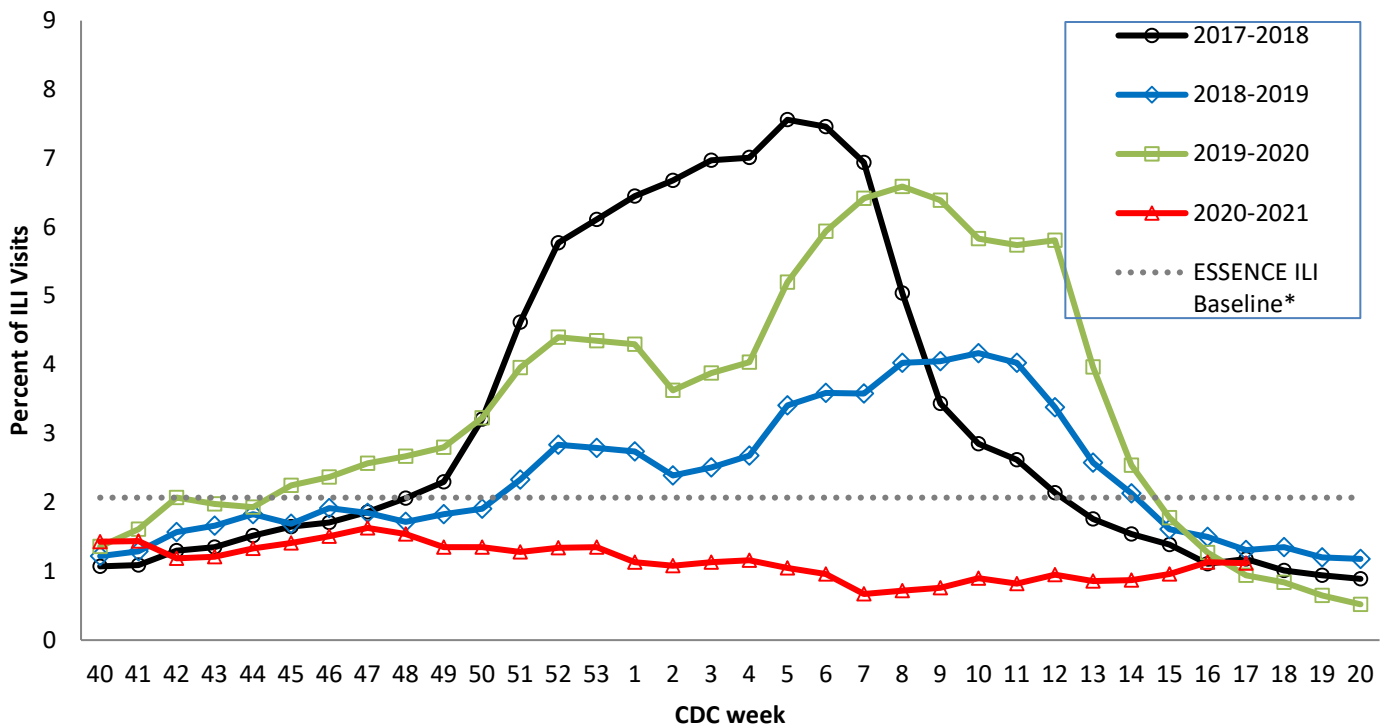
^{*} 2020-2021 season-to-date through the week ending May 22, 2021 (Week 20). Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

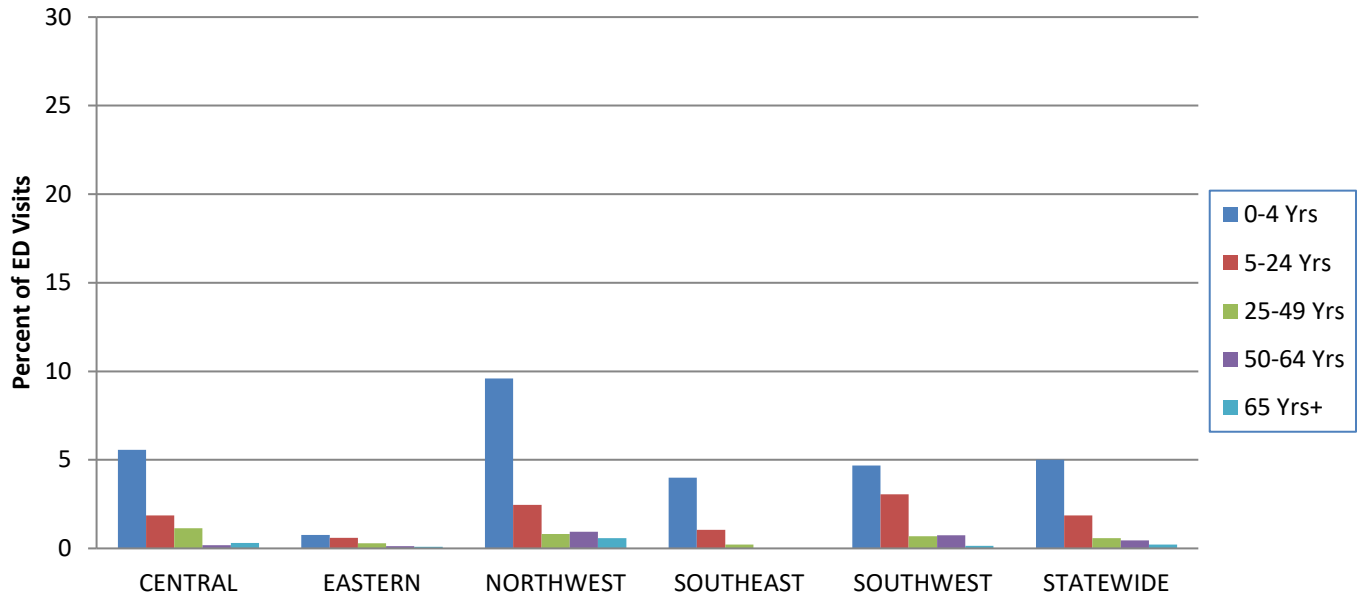


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCE ILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

**There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

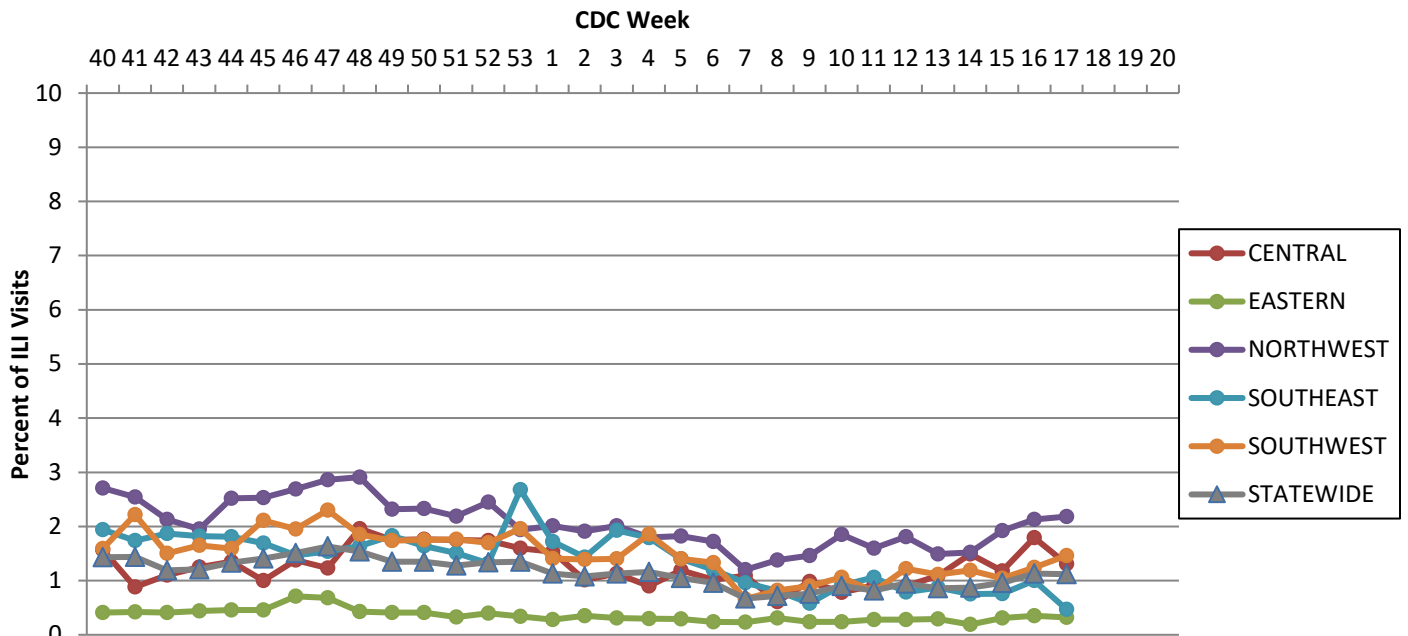
Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 17, 2021*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

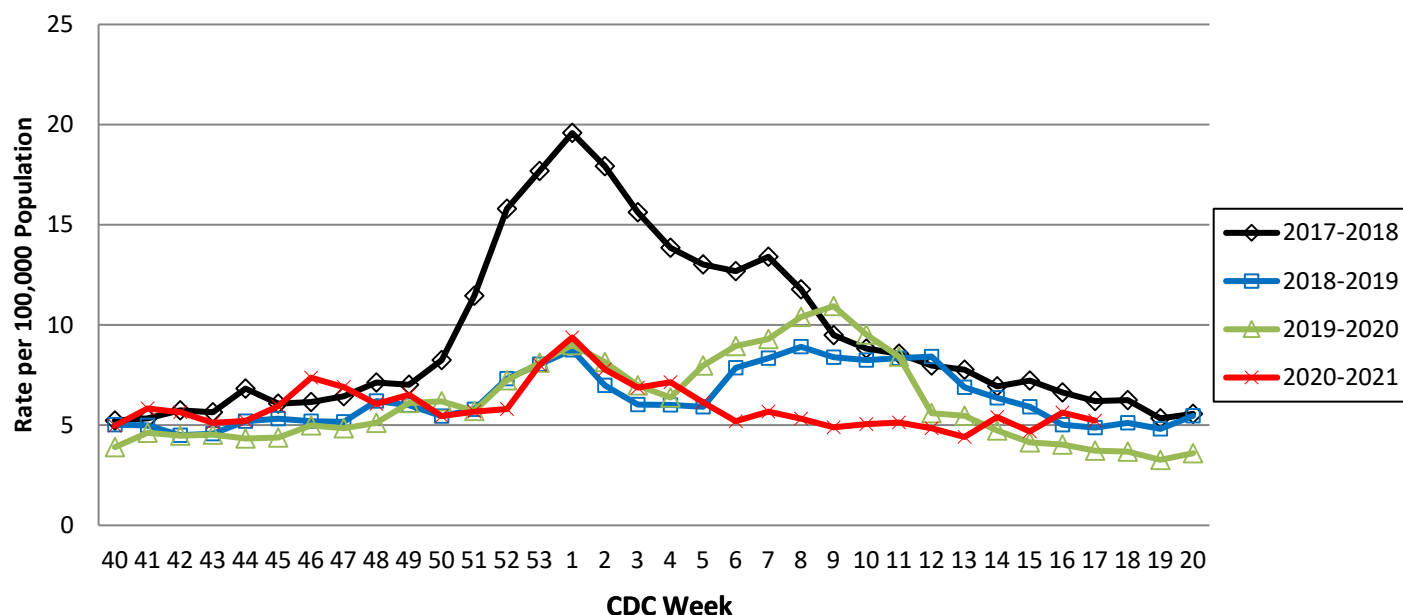
Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons**

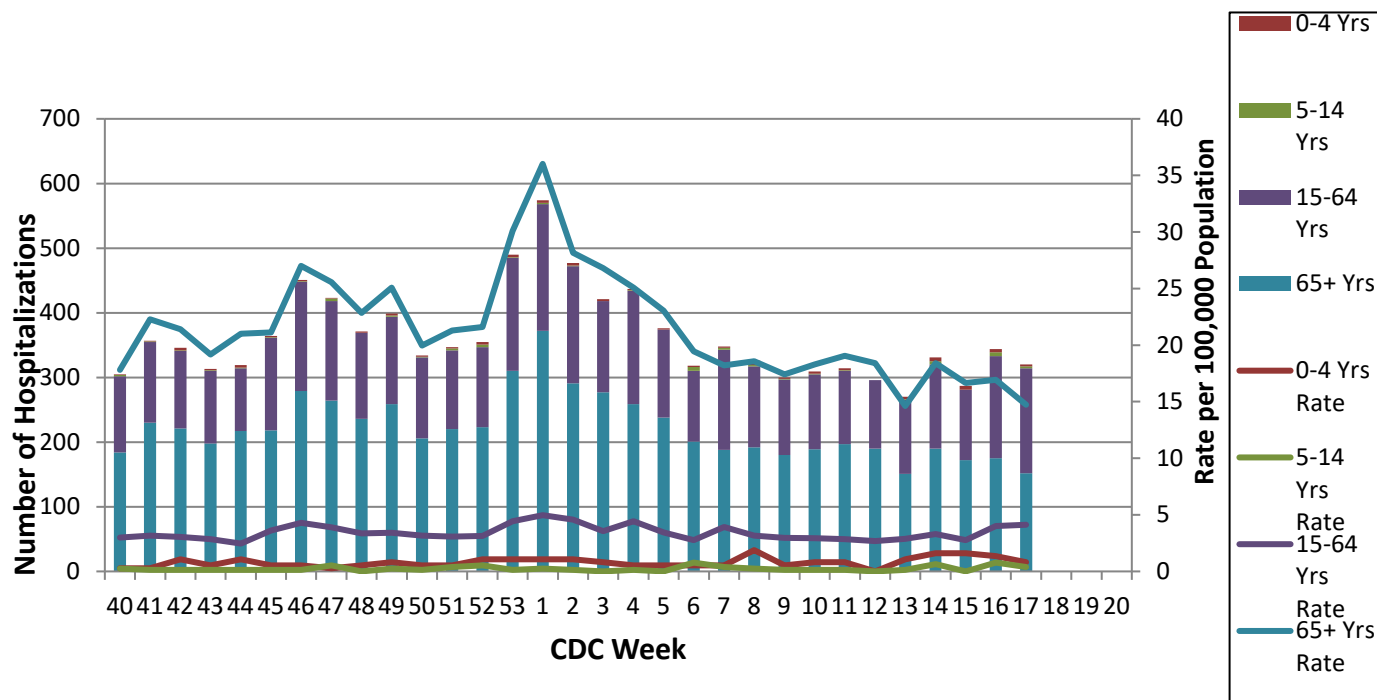


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 17, 2020-2021 Influenza Season**



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):
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World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 18: May 2, 2021 – May 8, 2021

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 18 a total of 20 laboratory-positive³ influenza cases (9 influenza A, 11 influenza B) were reported. A season-to-date total of 1,749 laboratory-positive influenza cases (762 influenza A, 966 influenza B, and 21 untyped) have been reported in Missouri as of Week 18. The influenza type for cases reported season-to-date includes 43.6 % A, 55.2 % B and 1.2 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 18. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 18 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 1.06 % (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of two influenza-associated death have been reported in Missouri as of Week 18⁵.
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 18.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 18
- Reported Week-specific Rate per 100,000 Population, CDC Week 18
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 16 – 18, April 18, 2021 – May 8, 2021)*

Influenza Type	Week 16	Week 17	Week 18	2020-2021* Season-to-Date
Influenza A	8	4	9	762
Influenza B	11	10	11	966
Influenza Unknown Or Untyped	0	0	0	21
Total	19	14	20	1,749

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 18, (May 2 – May 8, 2021)*[‡]

Age Group	Week 18 Cases	Week 18 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	5	1.34	203	54.23
05-24	5	0.31	446	27.80
25-49	2	0.10	502	26.23
50-64	1	0.08	306	24.75
65+	7	0.73	292	30.58
Total	20	0.33	1,749	28.75

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 18 (May 2 – May 8, 2021)^{*,‡}

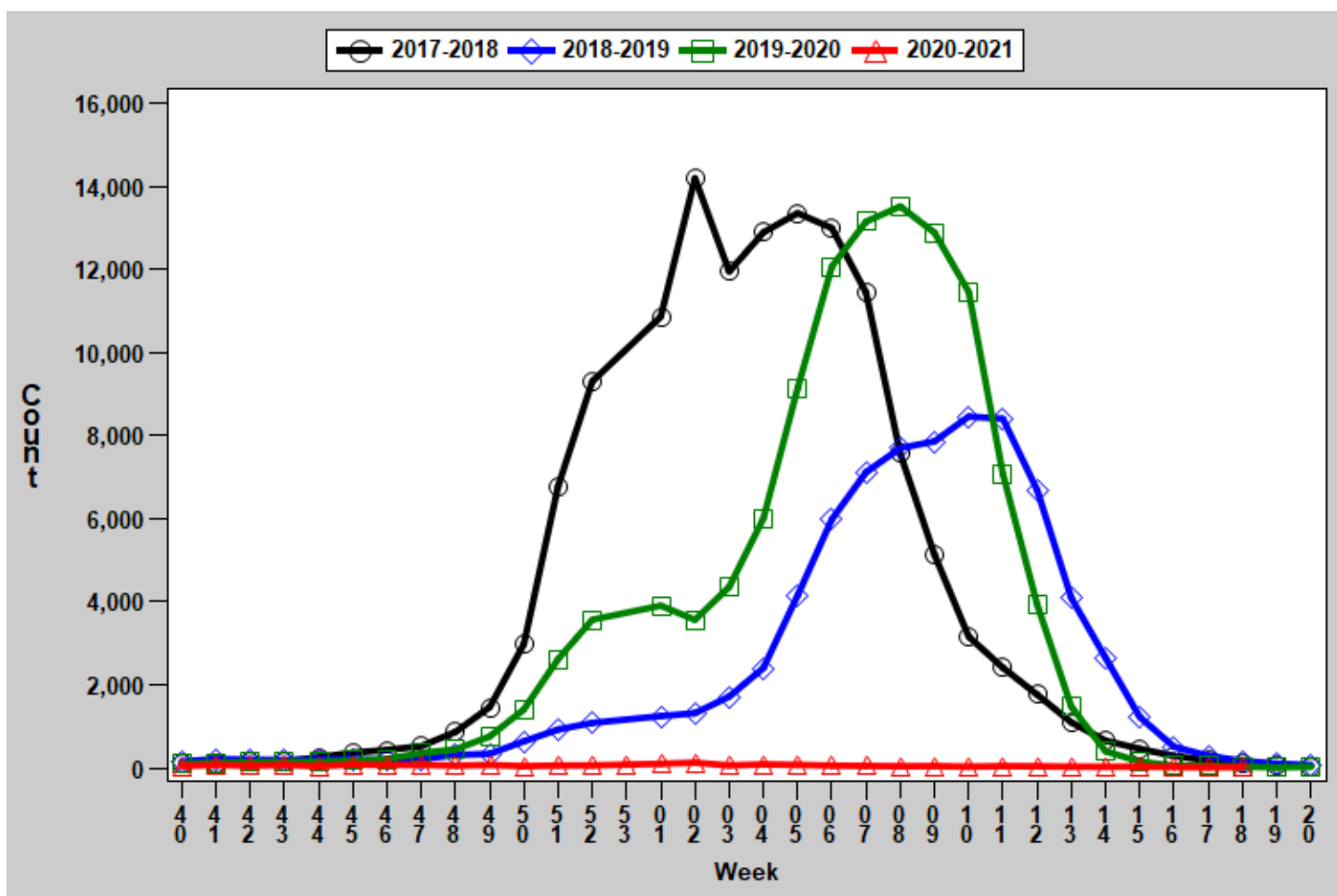
Region	Week 18 Cases	Week 18 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	4	0.59	232	34.27
Eastern	13	0.57	713	31.46
Northwest	1	0.06	222	13.90
Southeast	1	0.21	289	61.27
Southwest	1	0.09	293	27.35
Total	20	0.33	1,749	28.75

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*} Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

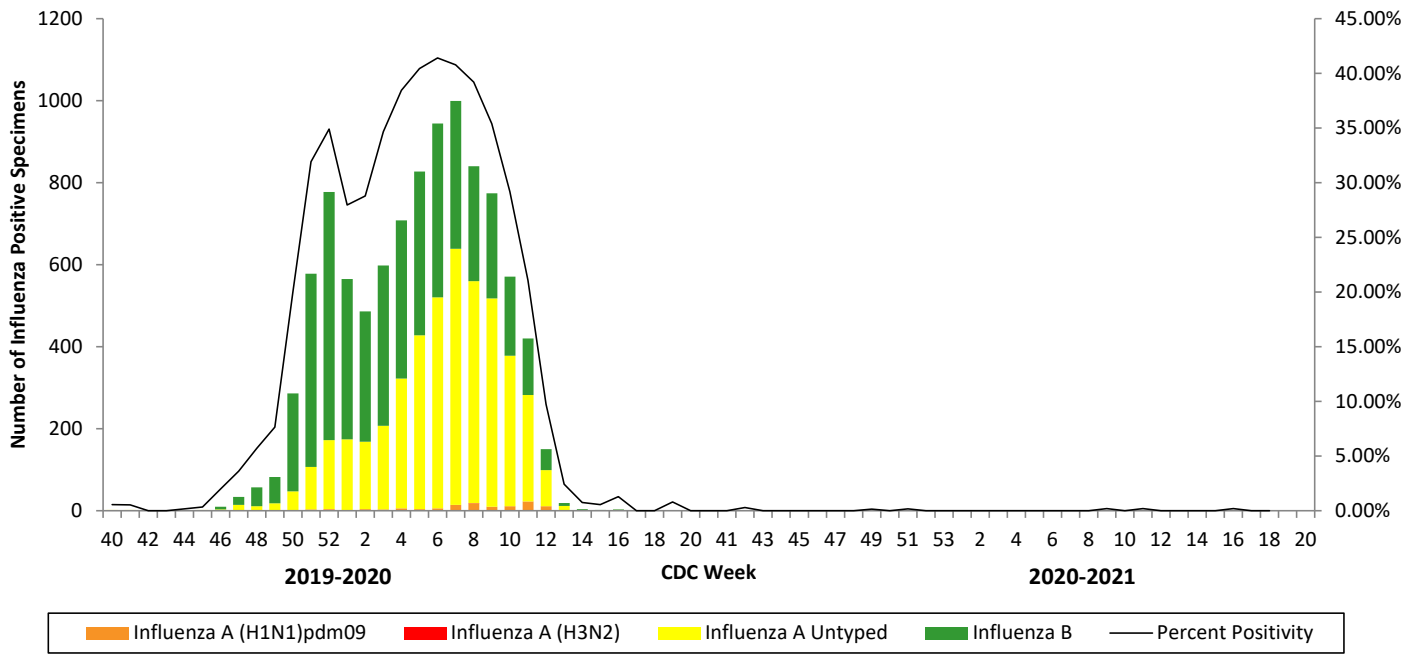
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021^{*}



[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

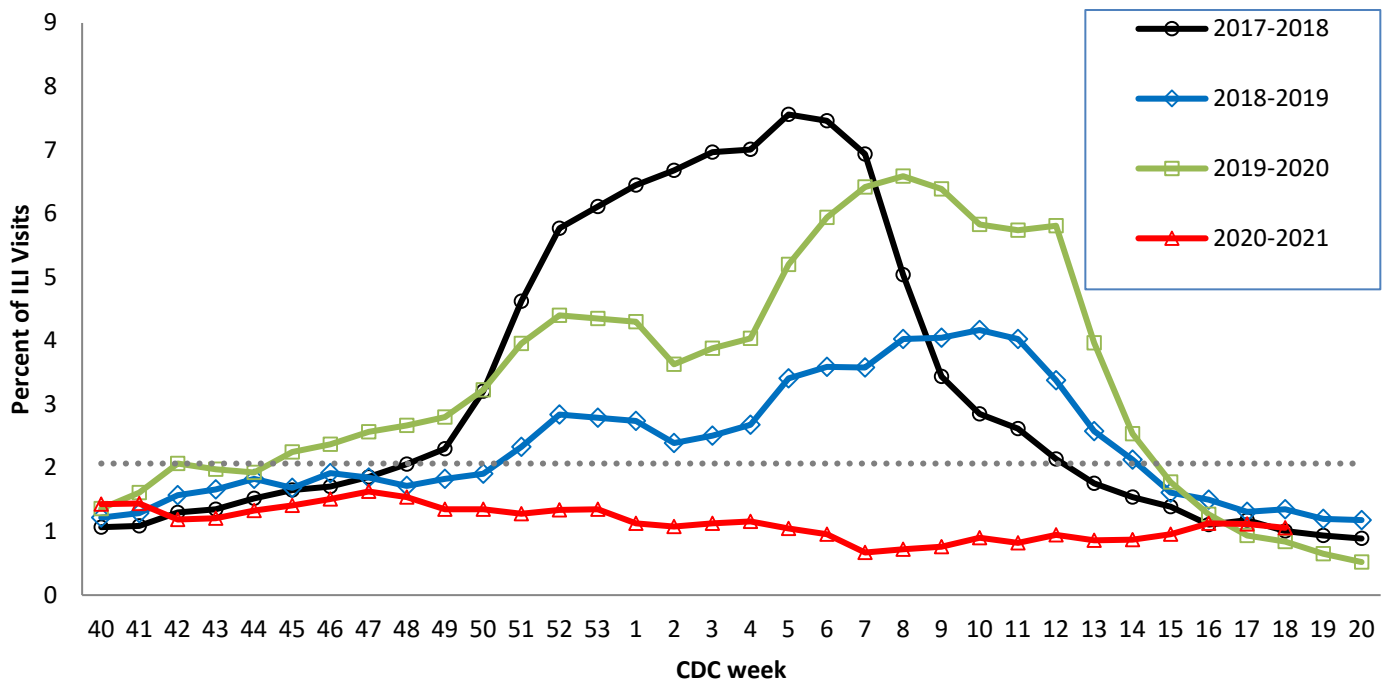
^{*} 2020-2021 season-to-date through the week ending May 22, 2021 (Week 20). Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

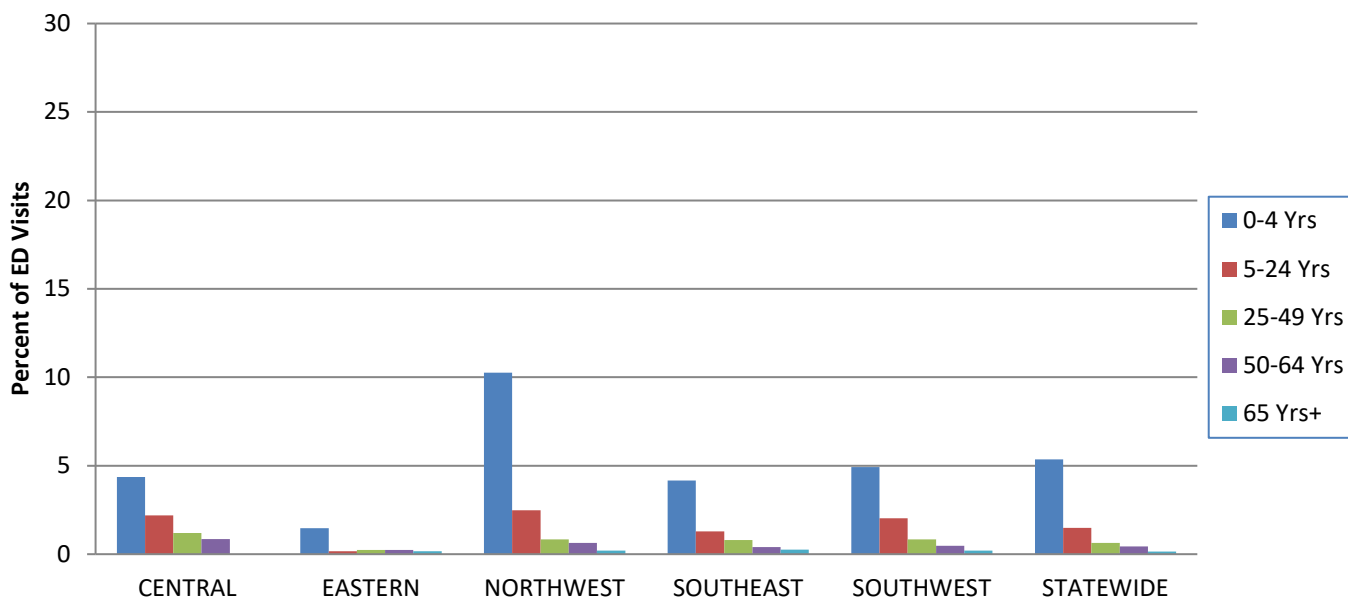


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

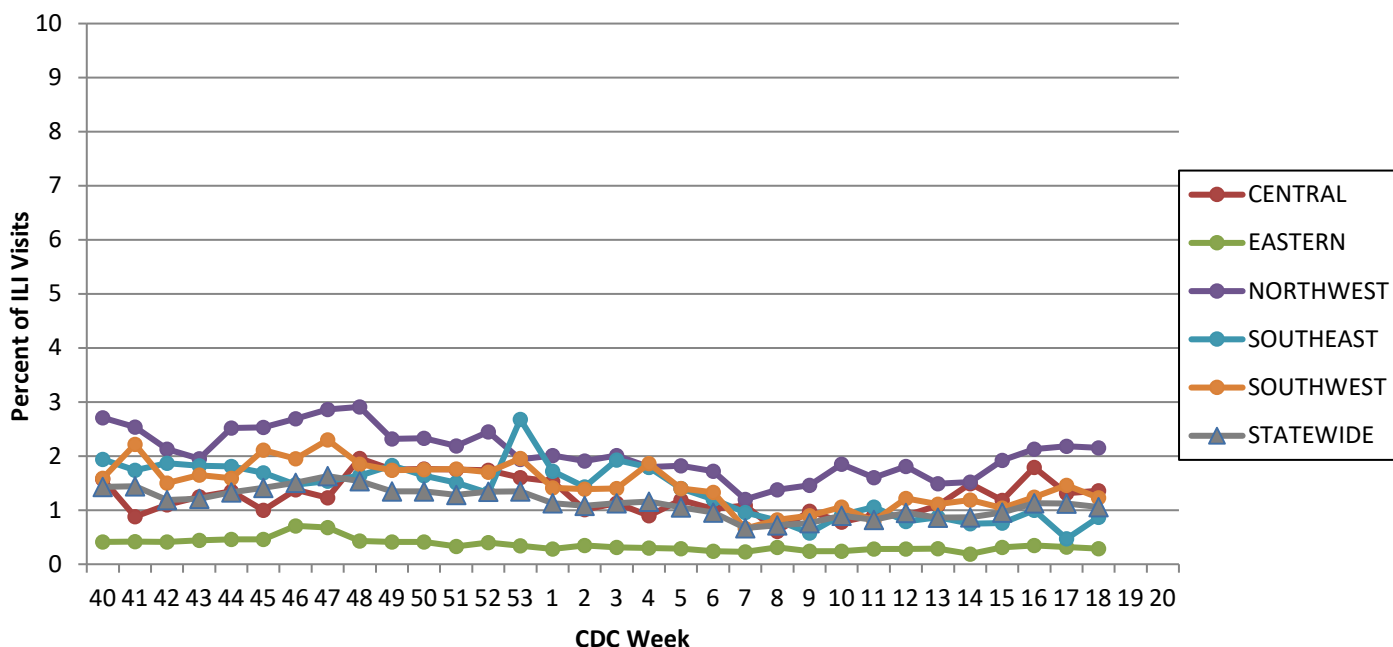
*There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 18, 2021*



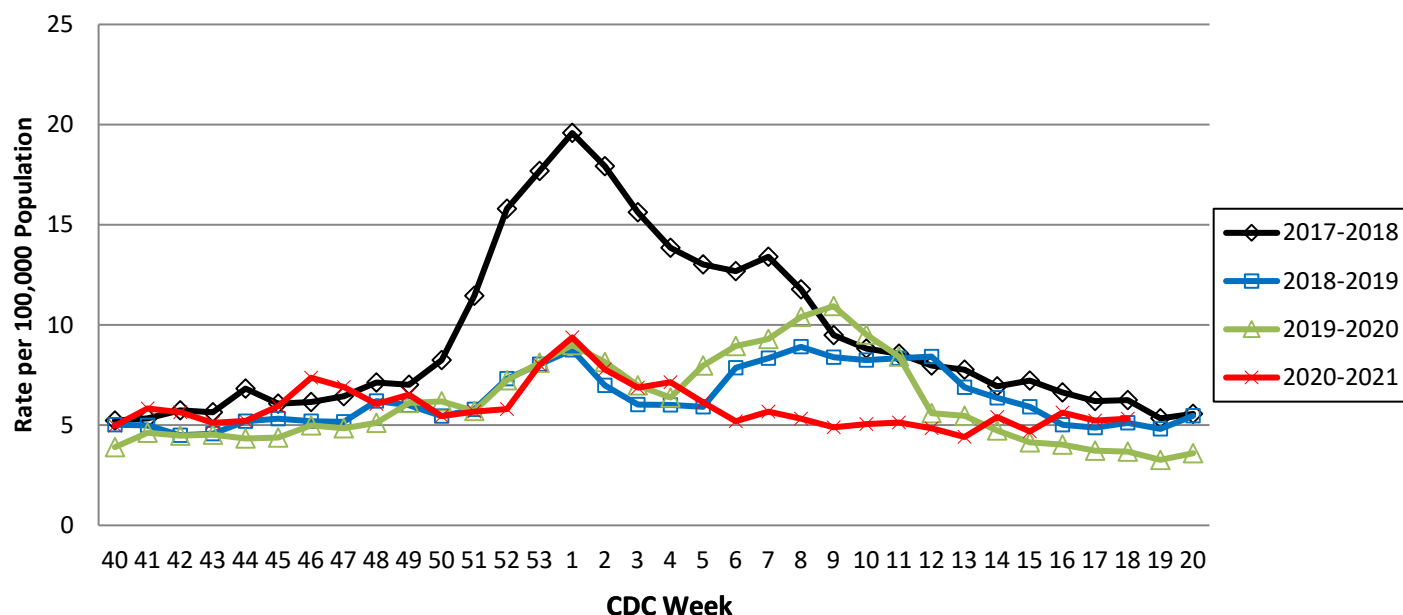
Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.
 *The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.
 *The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons**

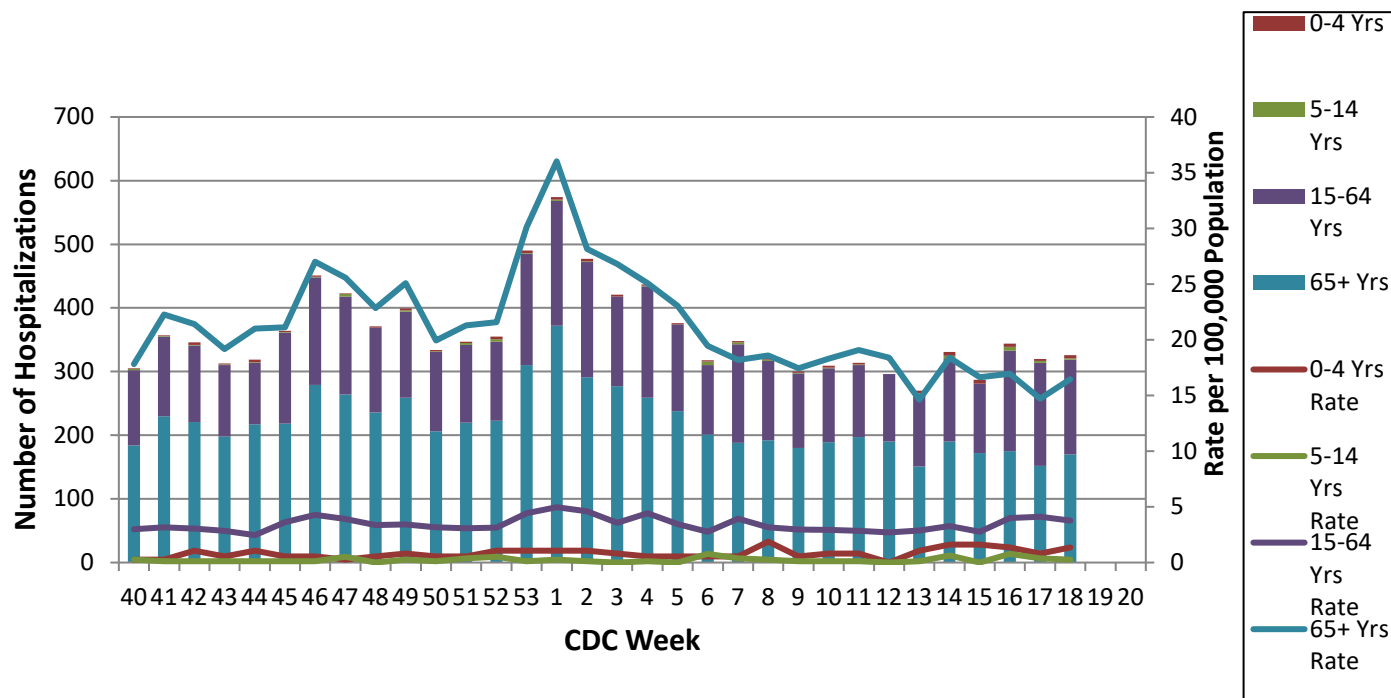


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal. Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 18, 2020-2021 Influenza Season**



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):
<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):
<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 19: May 9, 2021 – May 15, 2021

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 19 a total of 9 laboratory-positive³ influenza cases (3 influenza A, 6 influenza B) were reported. A season-to-date total of 1,767 laboratory-positive influenza cases (769 influenza A, 977 influenza B, and 21 untyped) have been reported in Missouri as of Week 19. The influenza type for cases reported season-to-date includes 43.5 % A, 55.3 % B and 1.2 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 19. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 19 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 1.23 % (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of 2 influenza-associated death have been reported in Missouri as of Week 19⁵.
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 19.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 19
- Reported Week-specific Rate per 100,000 Population, CDC Week 19
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 17 – 19, April 25, 2021 – May 15, 2021)*

Influenza Type	Week 17	Week 18	Week 19	2020-2021* Season-to-Date
Influenza A	5	12	3	769
Influenza B	10	14	6	977
Influenza Unknown Or Untyped	0	0	0	21
Total	15	26	9	1,767

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 19, May 9 – May 15, 2021)*[‡]

Age Group	Week 19 Cases	Week 19 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	3	0.80	209	55.83
05-24	3	0.19	453	28.23
25-49	1	0.05	503	26.29
50-64	2	0.16	309	24.99
65+	0	0.00	293	30.68
Total	9	0.15	1,767	29.04

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡] Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 19 (May 9 – May 15, 2021)^{}**

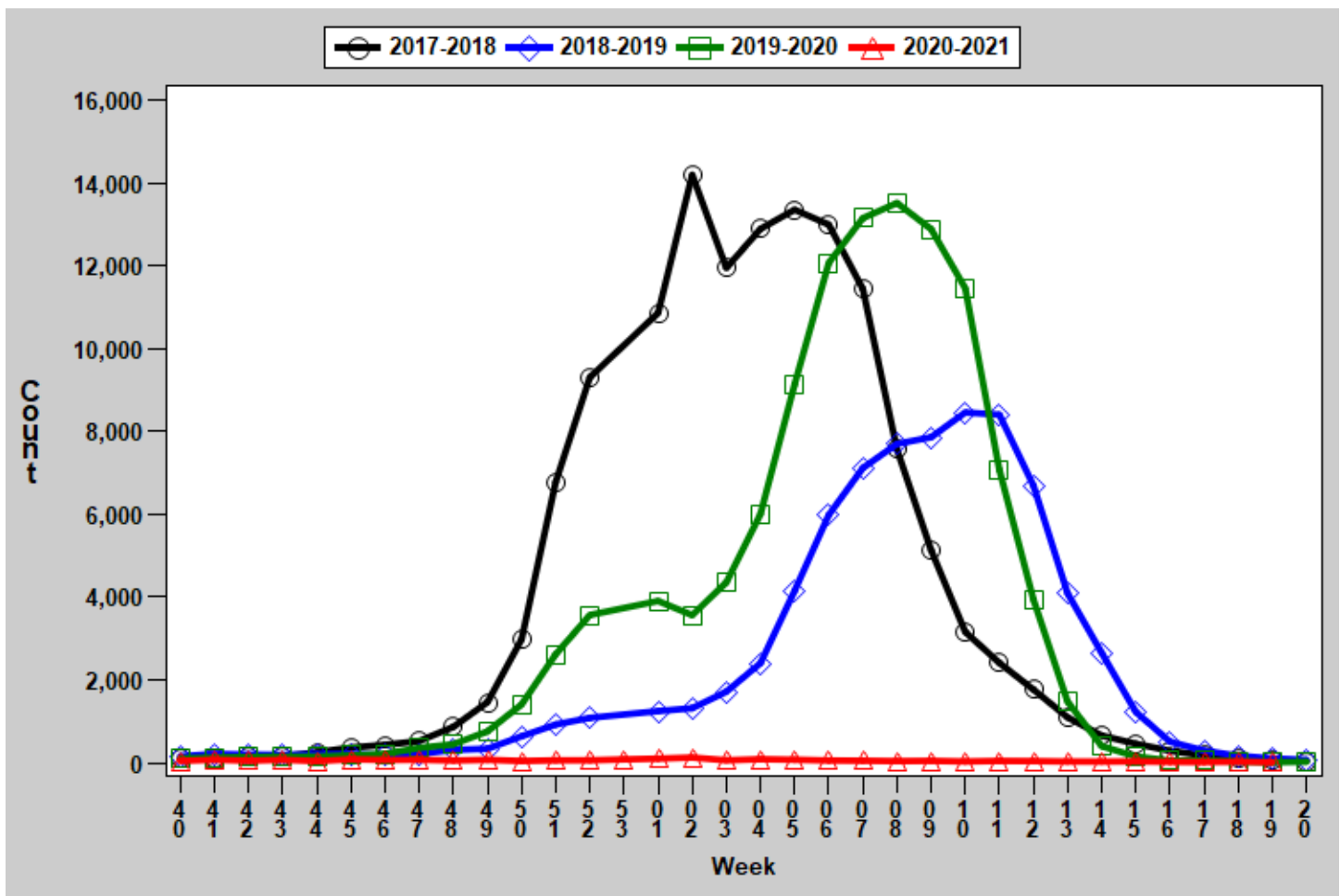
Region	Week 19 Cases	Week 19 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	1	0.15	235	34.71
Eastern	6	0.26	724	31.95
Northwest	1	0.06	223	13.96
Southeast	0	0.00	289	61.27
Southwest	1	0.09	296	27.63
Total	9	0.15	1,767	29.04

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{*}Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

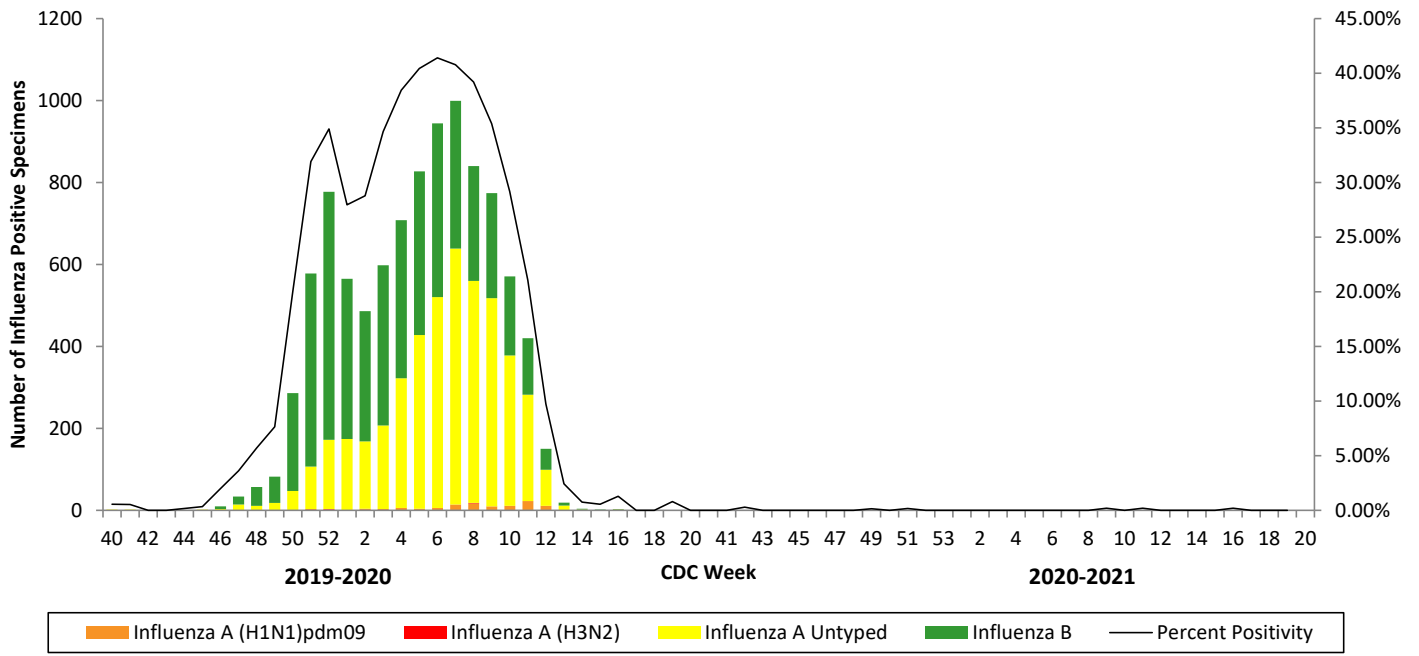
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021^{*}



[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

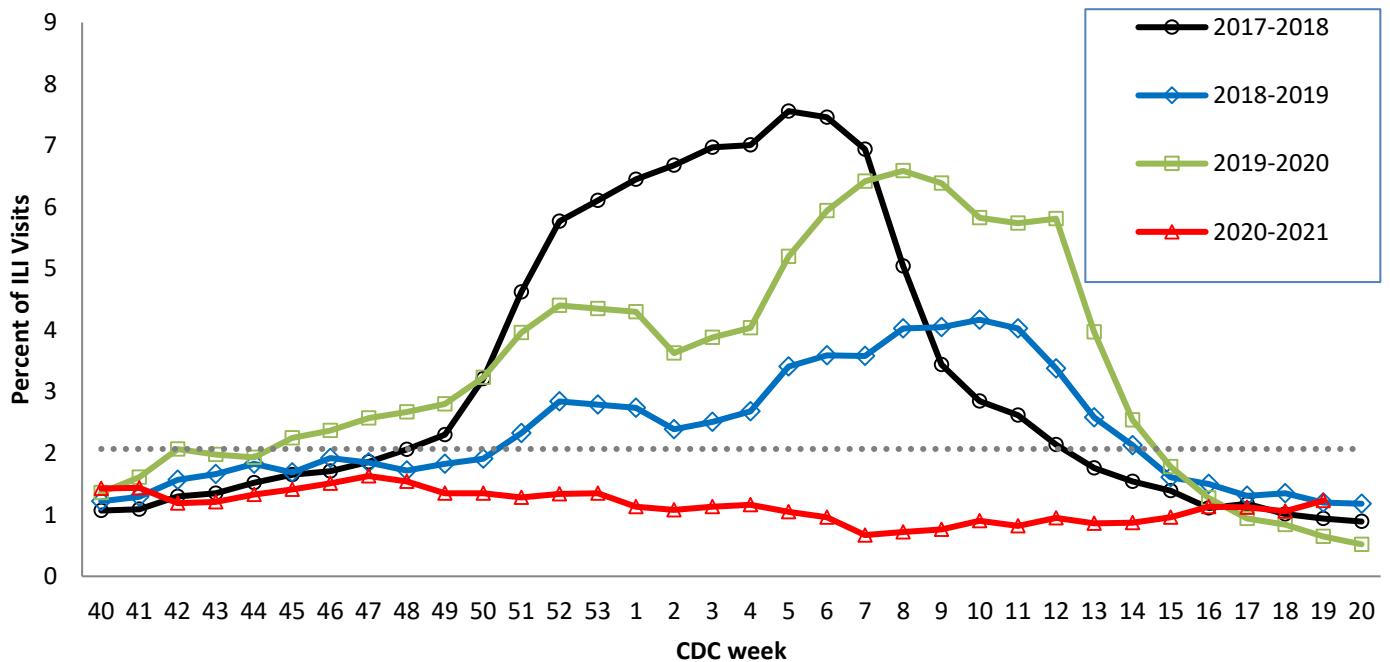
^{*}2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

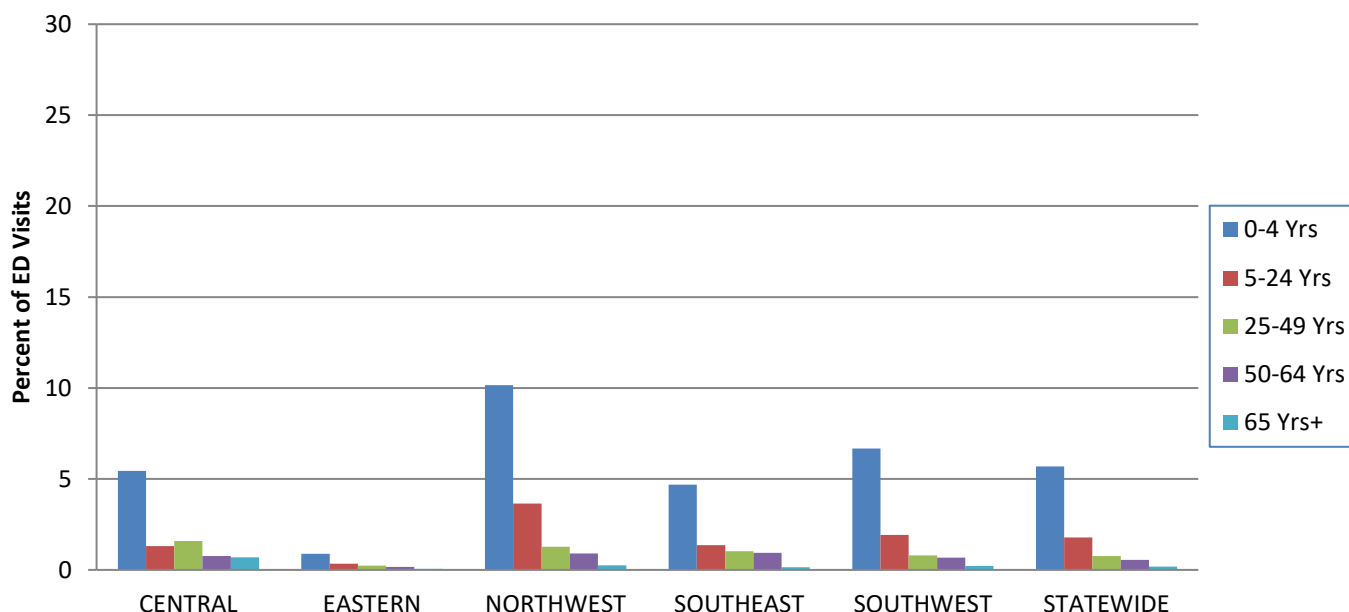


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

*There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

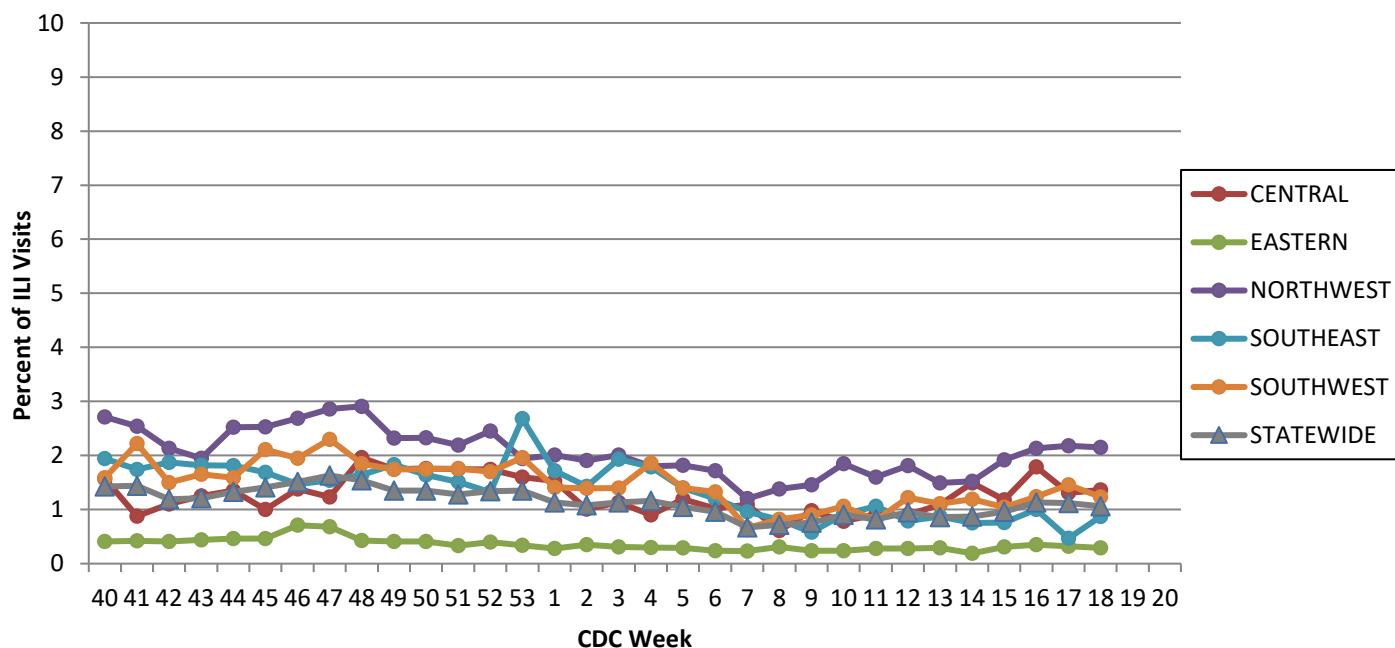
Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 19, 2021*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

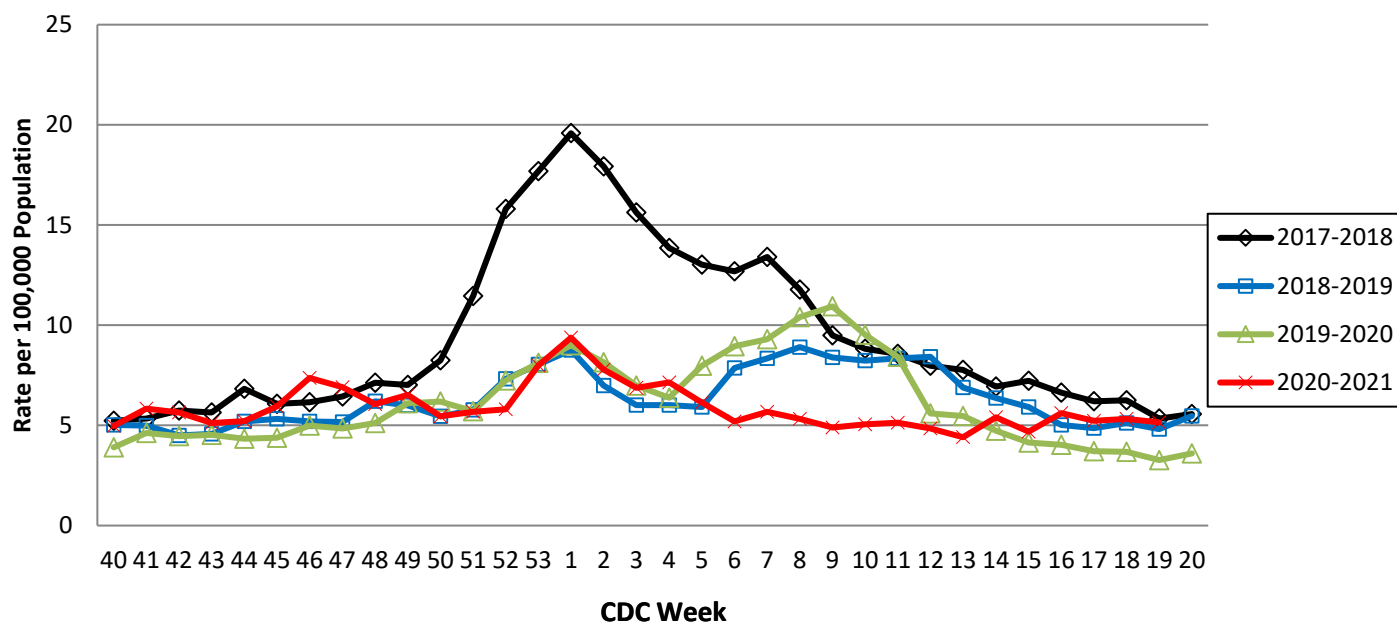
Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2020-2021 Influenza Season*



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons**

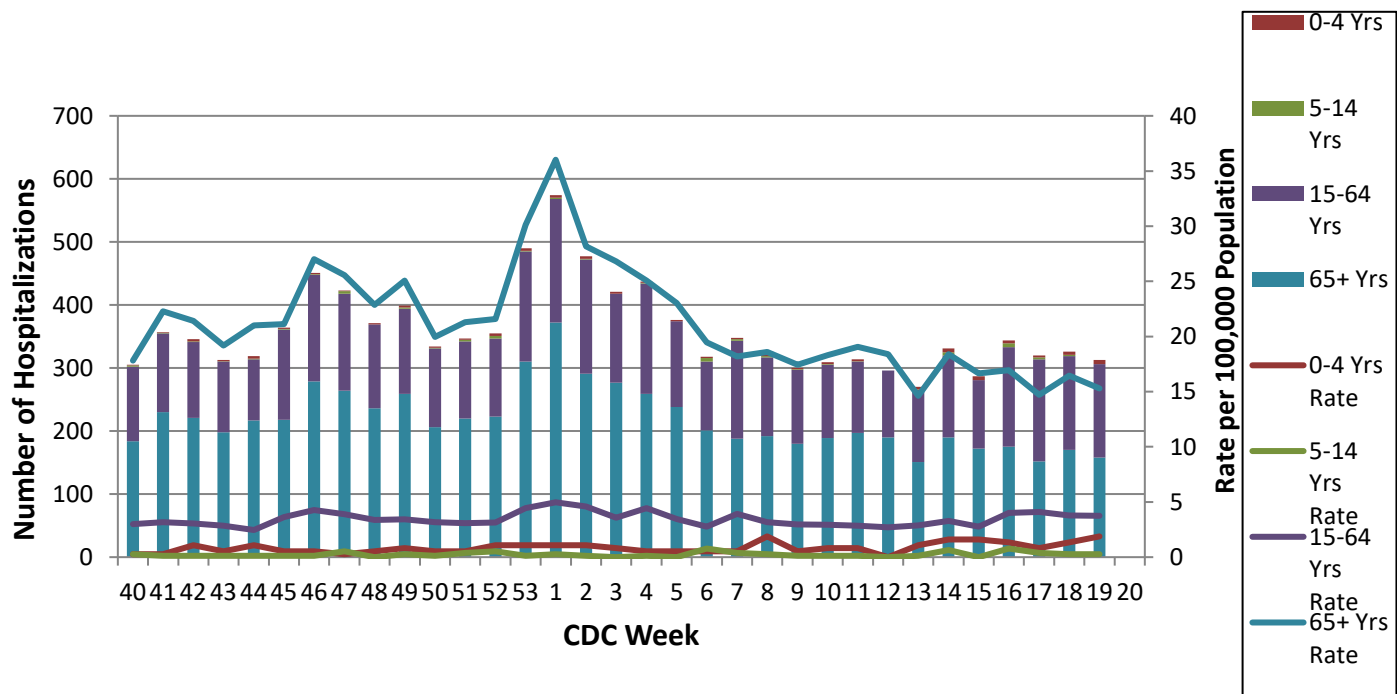


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal. Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 19, 2020-2021 Influenza Season**



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):
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World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/



Missouri Weekly Influenza Surveillance Report 2020-2021 Influenza Season¹

Week 20: May 16, 2021 – May 22, 2021

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Sporadic².
- During Week 20 a total of 9 laboratory-positive³ influenza cases (2 influenza A, 7 influenza B) were reported. A season-to-date total of 1,795 laboratory-positive influenza cases (784 influenza A, 990 influenza B, and 21 untyped) have been reported in Missouri as of Week 20. The influenza type for cases reported season-to-date includes 43.7 % A, 55.1 % B and 1.2 % untyped. No laboratory-positive cases of influenza were reported by the Missouri State Public Health Laboratory (MSPHL) during Week 20. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) also remained low during Week 20 (Figure 5).
- Influenza-like illness (ILI) activity was below baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI 1.36 % (Figure 6) through ESSENCE.⁴ The ILI data from a small number of sites located in the Northwest Region of the state is currently unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.
- A season-to-date total of two influenza-associated death have been reported in Missouri as of Week 20⁵.
- No influenza or ILI-associated outbreaks or school closures have been reported in Missouri as of Week 20.
- Seasonal influenza activity in the United States remains low. National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2020-2021 influenza season begins CDC Week 40 (week ending October 3, 2020) and ends CDC Week 39 (week ending October 2, 2021).

²Sporadic is defined as: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴Influenza-like illness (ILI) is defined by ILINet as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIfevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/004CCr0>. Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 20
- Reported Week-specific Rate per 100,000 Population, CDC Week 20
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 18 – 20, May 2, 2021 – May 22, 2021)*

Influenza Type	Week 18	Week 19	Week 20	2020-2021* Season-to-Date
Influenza A	13	7	2	784
Influenza B	16	7	7	990
Influenza Unknown Or Untyped	0	0	0	21
Total	29	14	9	1,795

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 20, May 16 – May 22, 2021)*

Age Group	Week 20 Cases	Week 20 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
00-04	2	0.53	213	56.90
05-24	5	0.31	464	28.92
25-49	1	0.05	510	26.65
50-64	1	0.08	312	25.24
65+	0	0.00	296	31.00
Total	9	0.15	1,795	29.51

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 20 (May 16 – May 22, 2021)^{*‡}

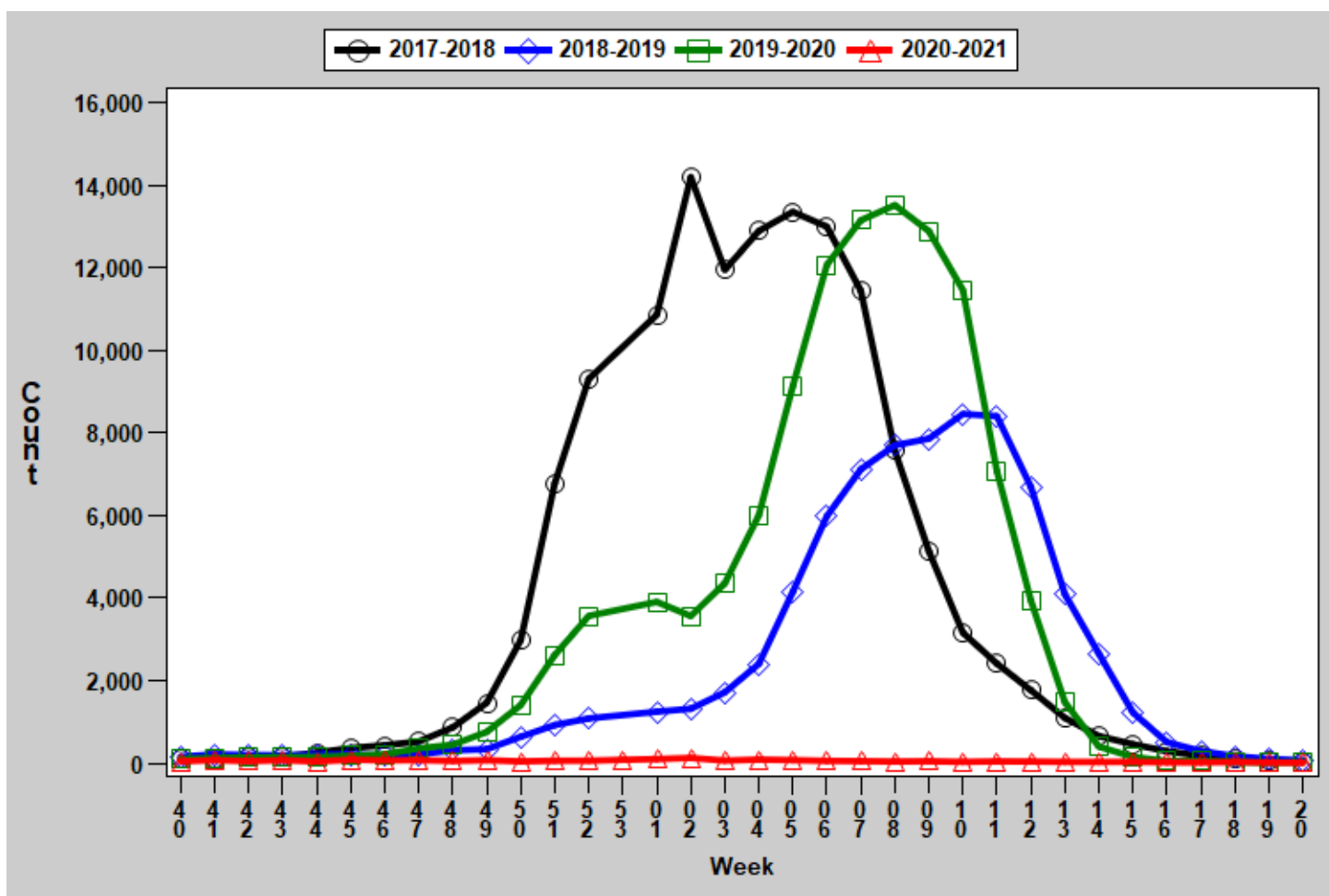
Region	Week 20 Cases	Week 20 Rate [‡]	2020-2021* Season-to-Date	2020-2021* Season-to-Date Rate [‡]
Central	5	0.74	256	37.81
Eastern	0	0.00	724	31.95
Northwest	4	0.25	227	14.21
Southeast	0	0.00	289	61.27
Southwest	0	0.00	299	27.91
Total	9	0.15	1,795	29.51

[†] Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

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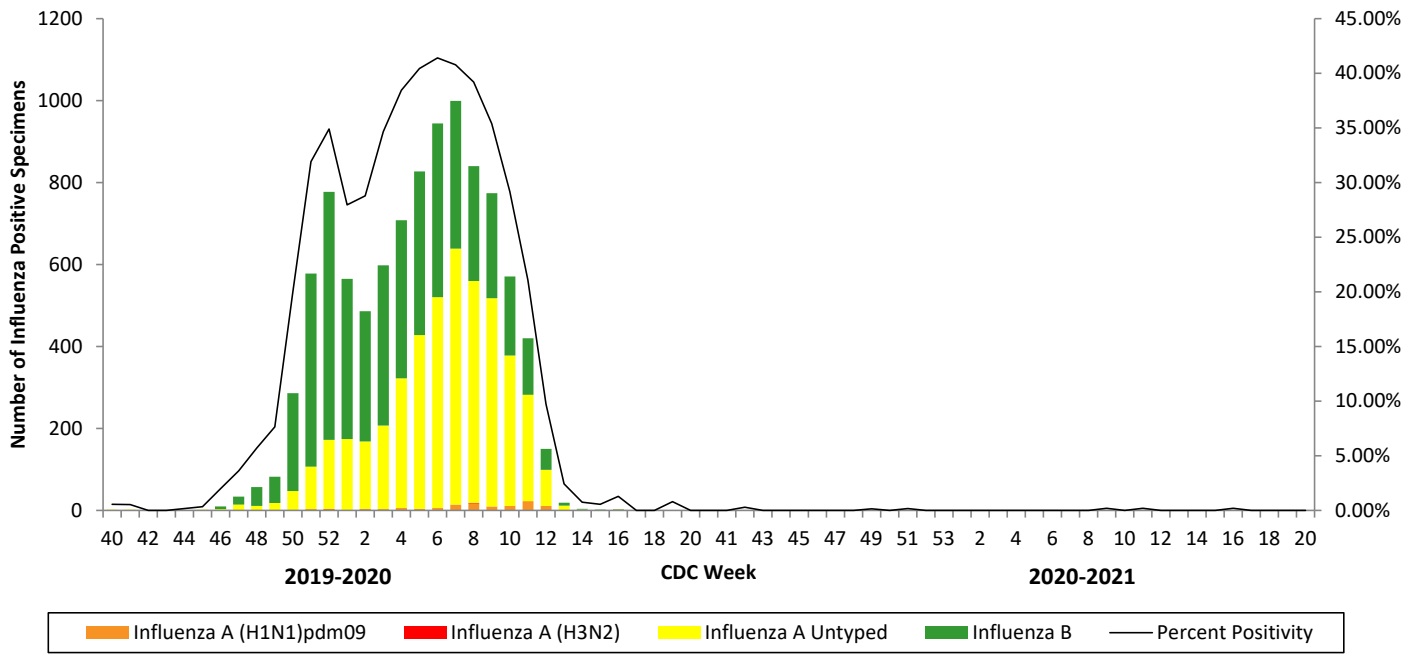
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2017-2021^{*}



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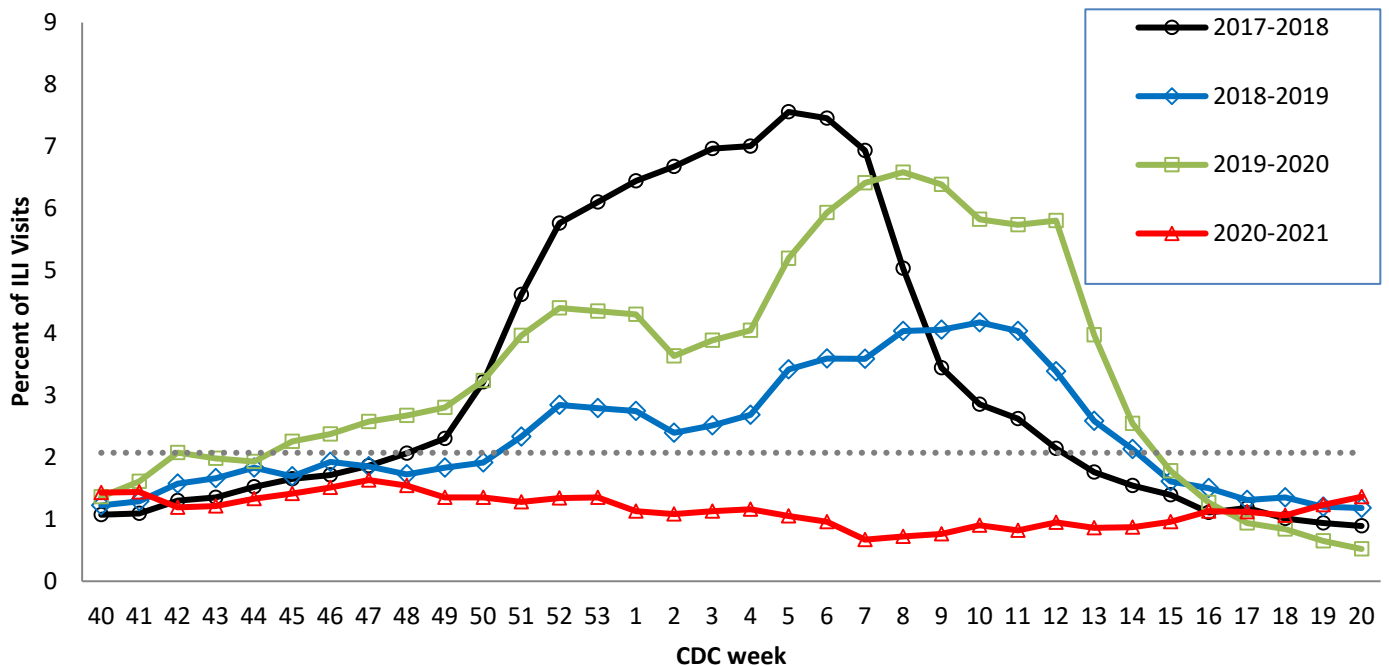
^{*} 2020-2021 season-to-date through the week ending May 22, 2021 (Week 20). Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC).
2020-2021 season-to-date through the week ending May 22, 2021 (Week 20).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2017-2021 Influenza Seasons**

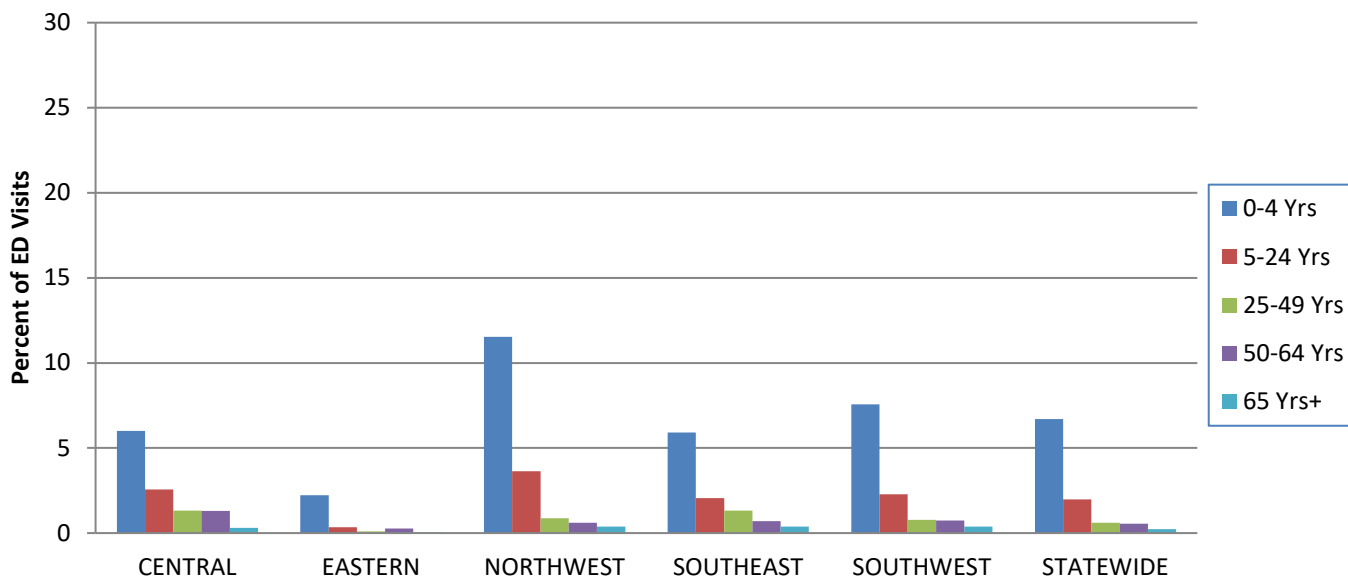


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics ESSENCE version 1.20.

*The ESSENCEILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits plus two standard deviations.

**There are 53 weeks in 2020. The estimates for the previous three years' values for the weeks 53 are the average of weeks 52 and 1.

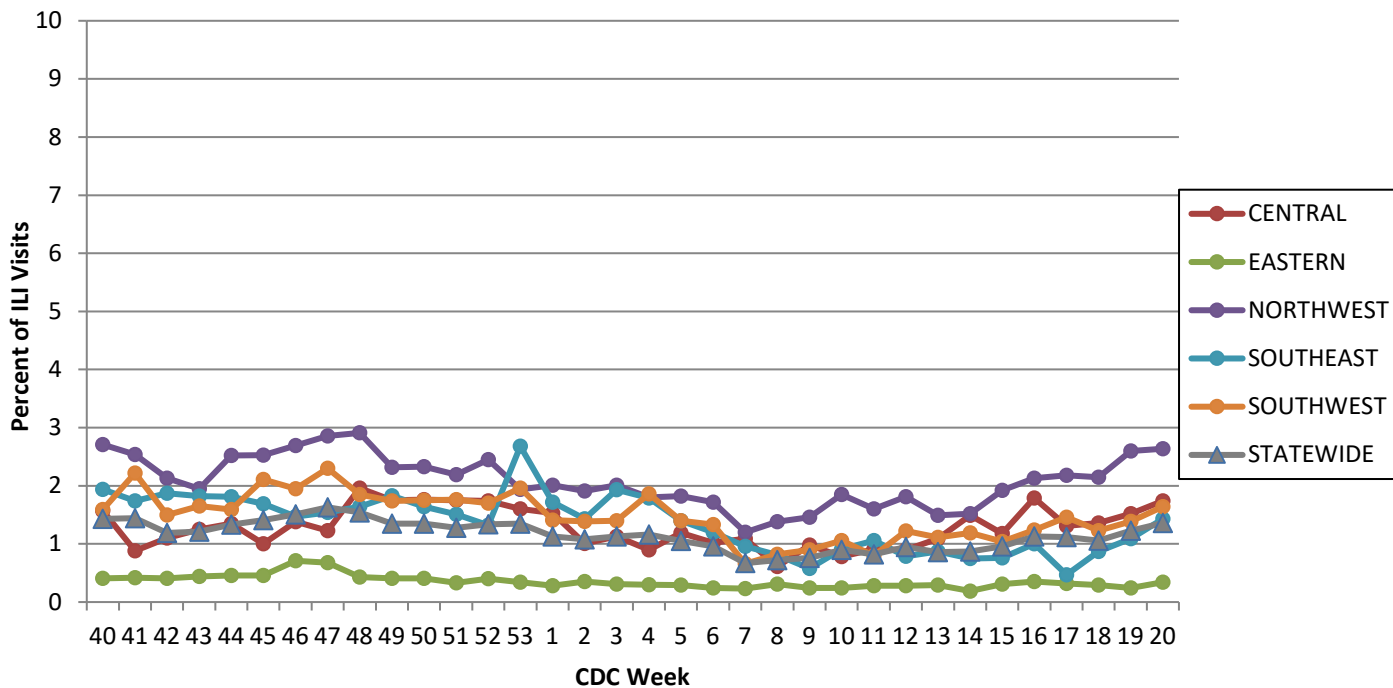
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Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

*The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

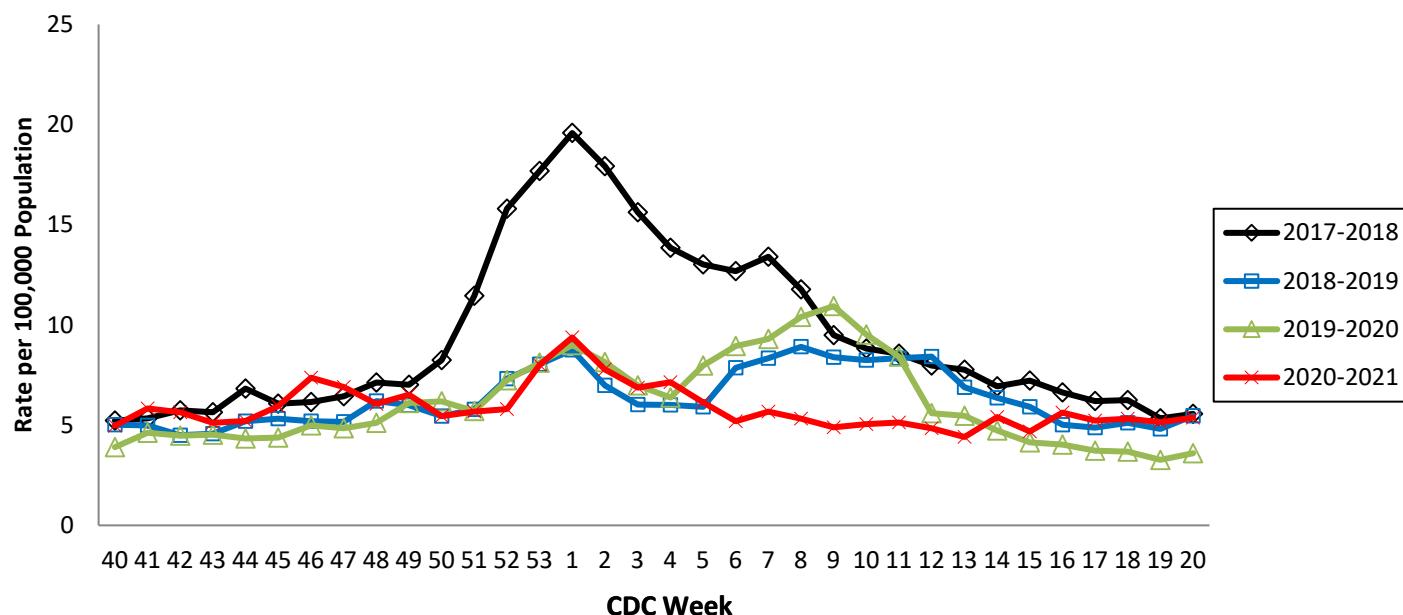
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Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

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Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2017-2021 Influenza Seasons**

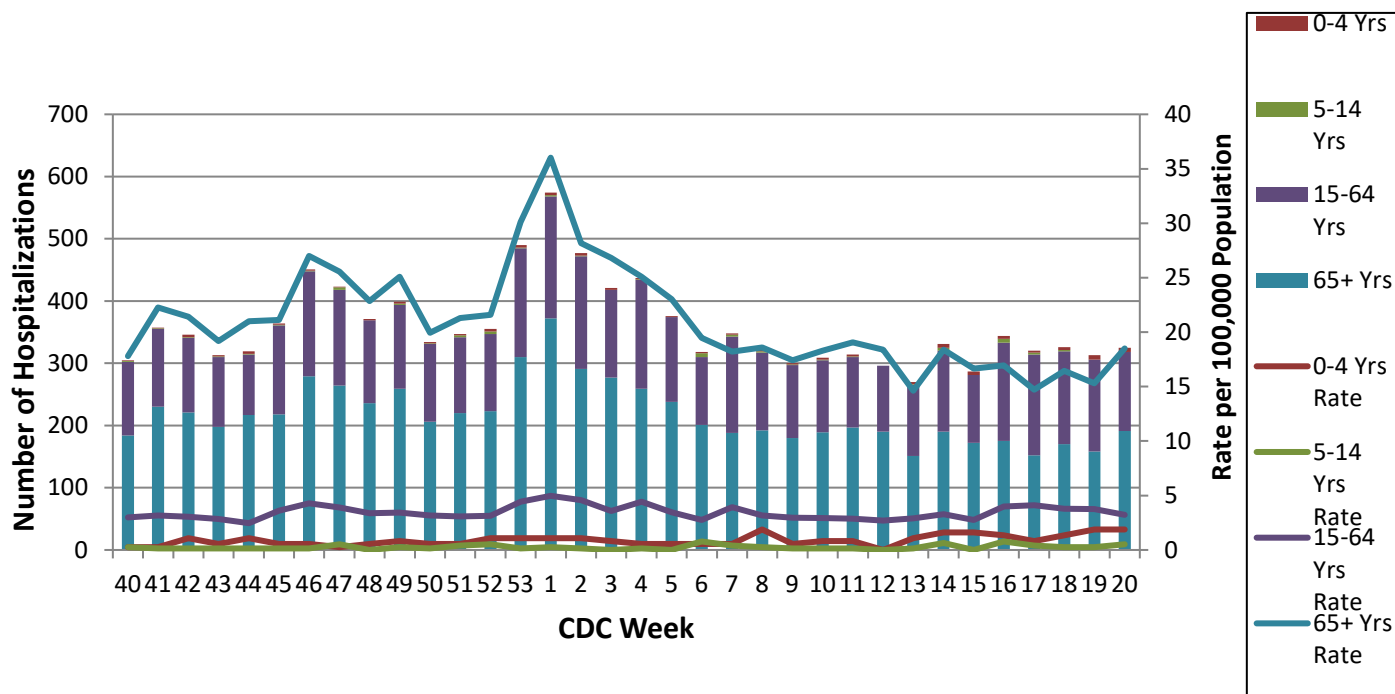


Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.
Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

*There are 53 weeks in 2020. The estimates for the previous 3 years' values for the weeks 53 are the averages of weeks 52 and weeks 1.

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 20, 2020-2021 Influenza Season**



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal

**Pneumonia syndromes during the 2020-2021 season may include those associated with COVID-19 and should be interpreted with caution.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):

<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):

<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:

http://www.who.int/influenza/surveillance_monitoring/en/